10¢ A COPY

The OIL WEEKLY

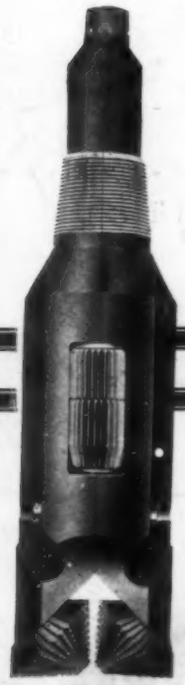
September 10, 1926 Volume 42. No. 12

Service

The speed, safety and economy of

HUGHES ROCK BITS

have made possible the use of the Rotary in oil fields throughout the world formerly drilled by cable tools



"Sold by Supply Stores Everywhere"

HUGHES TOOL COMPANY

Service Plants
Los Angeles, Calif.
Oklahoma City, Okla.

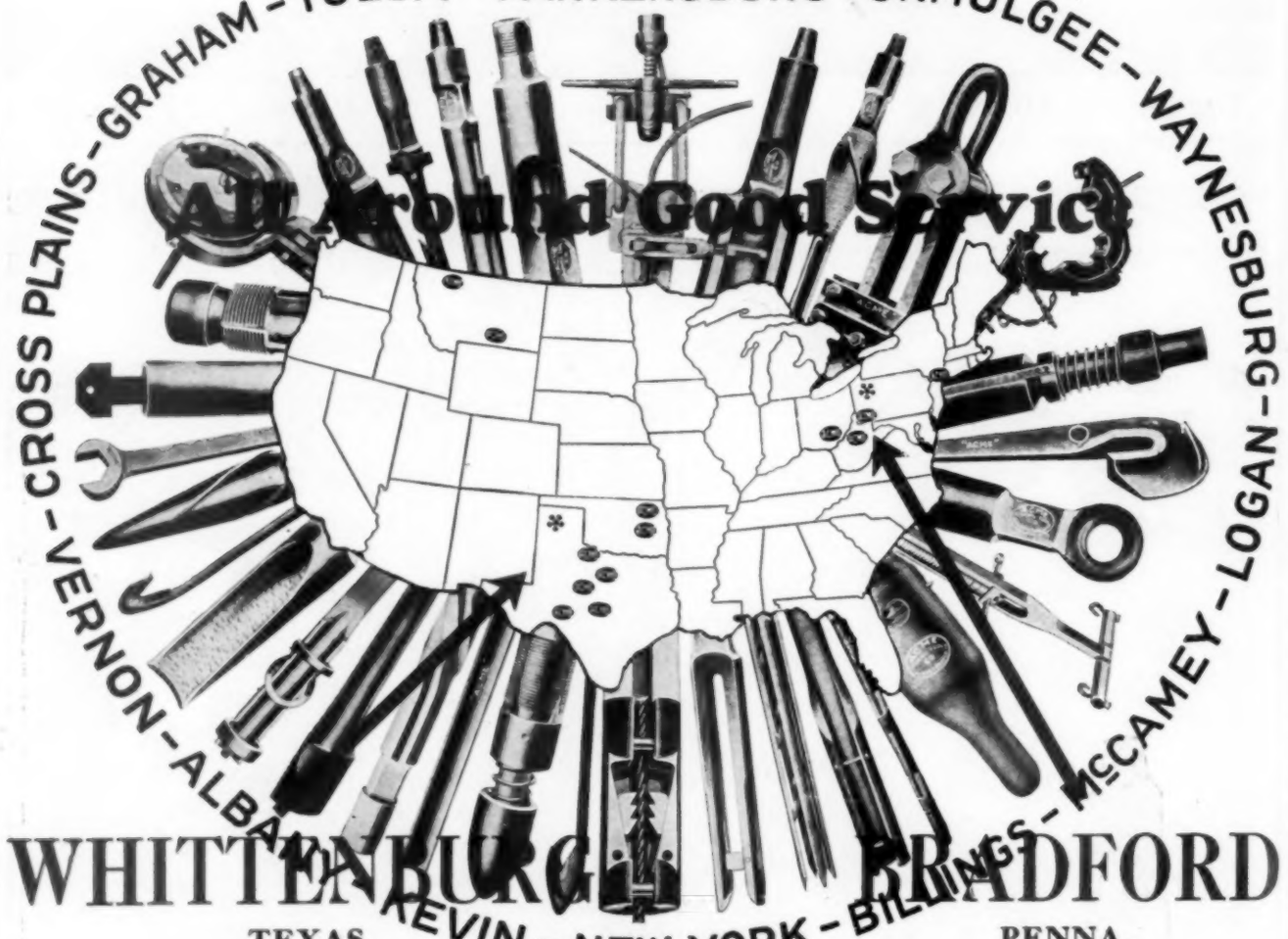
Main Office and Plant
HOUSTON
TEXAS

Export Office
New York City

Gumming up a fishing job with fishing tools is like throwing money into the well.

You'll have the least investment and the most success in long or short time fishing if you use

ACME FISHING TOOLS


TULSA - PARKERSBURG - OKMULGEE - WAYNESBURG - LOGAN - McCAMEY - BILLINGS - KEVIN - NEW YORK - ALBANY - VERNON - CROSS PLAINS - GRAHAM
All Around Good Service

WHITTENBURG, TEXAS — BRADFORD, PENNA.

TWO NEW STORES

We are pleased to announce the establishment of new stores at Whittenburg, Texas, and Bradford, Pa. They will represent us on the ACME BASIS of

Quality
of the best: the result of 25 years of fishing tool designing, manufacturing and actual operating testing.

Service
Complete stocks: Accessibly located with competent, wide-awake distributors with whom doing business is a pleasure.

Value
Uncxcelled on account of economical manufacturing and fair prices scientifically based on the average length of tool life.

ACME FISHING TOOL CO.

Parkersburg, West Virginia.

Export Office: 136 Liberty St., New York City, N.Y.

Warehouses and Distributors:

Midland Iron Works—Billings, Montana.
Great Northern Tool & Supply Co.—Kevin, Mont.
Acme Rental Tool Service Co.—Graham, Texas.
Acme Tool Company—Albany, Texas.
Acme Fishing Tool Co. of Tex.—Vernon, Tex.
Acme Tool Company—Cross Plains, Texas.
Acme Tool Company—McCamey, Texas.
Acme Fishing Tool Co.—Whittenburg, Texas.
Elms Bros. & Company—Waynesburg, Pa.
B. & A. Specialty Company—Tulsa, Okla.
Acme Fishing Tool Co.—Okmulgee, Okla.
Logan Foundry & Machine Co.—Logan, O.
Lloyd, Smith Company—Bradford, Pa.

The OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 1716 Dallas Ave., Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879

fittings

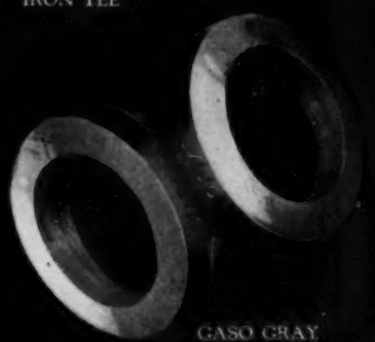
The same quality of castings, the same accurate machining, the same careful workmanship that we put into Gaso Pumps we also put into Gaso FITTINGS. As a result, they have a special appeal for pipe line officials who build with the future in mind.

In addition to a comprehensive line of standard fittings—including heater heads, Beckwith swing check valves, liner expanders, river clamps, pipe line strainers, extra heavy flanges and ground joint flange unions—our foundry and pattern shop enable us to figure on special requirements.

Our engineering department is, as always, at your command.

GASO PUMP & BURNER MFG. CO. .. *Tulsa, Oklahoma*

GASO GRAY IRON TEE



GASO GRAY IRON ELL

GASO PIPE LINE STRAINER

GASO BECKWITH SWING CHECK VALVE

GASO PUMPS

for every

For Long Life and Economy New

Those towering skyscrapers that stand as first tribute to America's architectural and engineering skill are striking examples of the strength and permanence of *structural steel.*

Wood, tubes and pipe all have their place as conveyors or decoration in these mammoth buildings, but for carrying loads and supporting great weights, America's foremost engineers rely entirely upon structural steel—the same metal in the same form that makes International "IDECO" the strongest derrick in the field.

INTERNATIONAL STEEL IDECO DERRICKS (GALVANIZED)

Say you saw it in The OIL WEEKLY

York Builds With Structural Steel

There is never an "IDECO" girt or brace that is not new, first-grade material, each contributing a known quota of strength to the derrick's enormous total.

Furthermore, every inch of every "IDECO" is fully protected from the menace of rust by a heavy coating of pure zinc applied in the process of manufacture. Being steel "IDECOS" are naturally fireproof. And because of the small head resistance, they survive the heavy windstorms that play havoc with wooden rigs. Dollar for dollar, or by any other comparison, these "oil skyscrapers" offer you the strongest, safest and most efficient derrick you can buy, and any "IDECO" user will back us up to the limit.

There's an "International" branch near you where you will get quick, intelligent service.

The International Derrick & Equipment Company

Columbus, Ohio **Torrance, Cal.**

Dallas Denver Tulsa Shreveport Houston Casper Bakersfield Oil City
Wewoka Smackover Eldorado, Kans. Los Angeles Wichita Falls
Tonkawa Corsicana Mexia New York

National Supply Company of California—Distributors in California

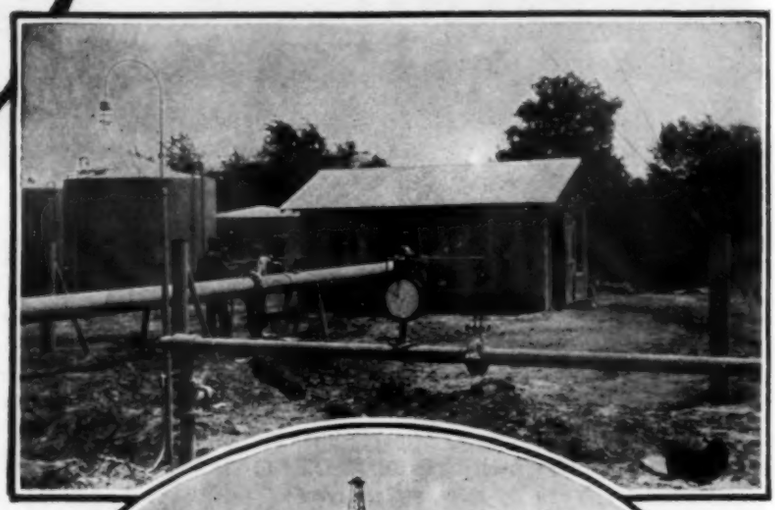
The largest company devoted exclusively to the manufacture of steel (galvanized) equipment for the oil, gas and artesian industries.

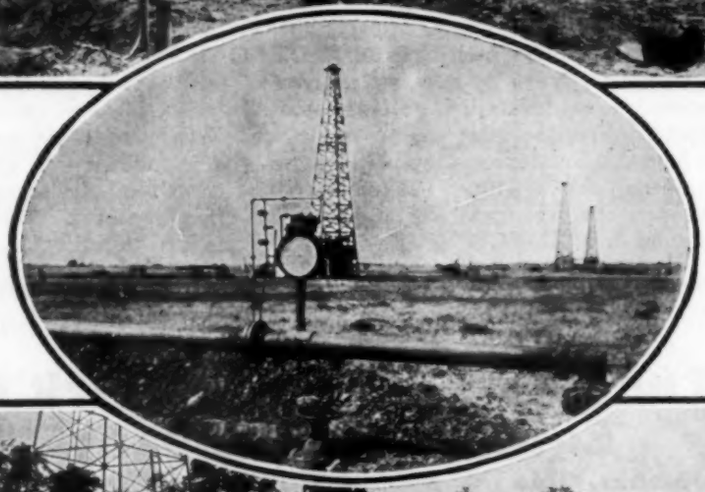
INTERNATIONAL STEEL IDECO DERRICKS (GALVANIZED)

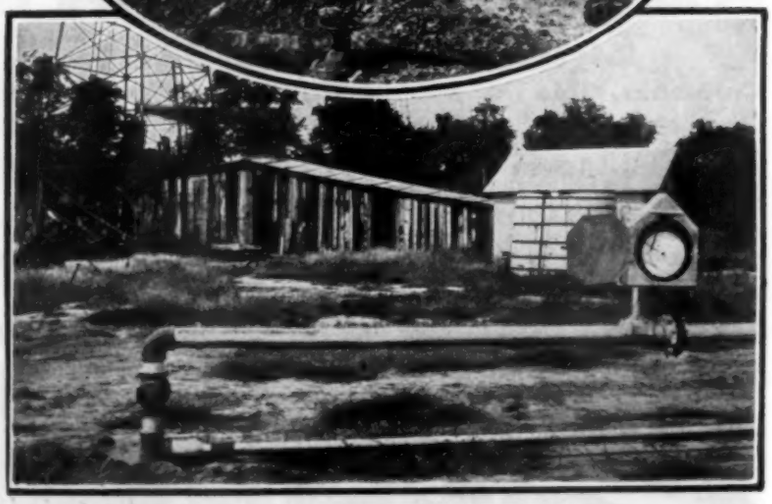
Say you saw it in The OIL WEEKLY

The Real Test of a Meter

METERS METRIC







After all, there's only one real test of the worth and reliability of a meter.

Is It Accurate?

TO BE ACCURATE, principle and design must be correct—material and workmanship must be of first quality. The design of Metric Orifice Meters is such that the possibility of total variations from any twisting or bending action, friction, or play in joints shall never exceed ¼ of 1% in the calculated results. This extreme precision is secured through uniform area of the mercury pots, large area of float, long lever arm, small angle of movement of the pen, minimum number of moving parts and few surfaces affected by friction.

For 38 years we have manufactured meters for use on the lease, in the refinery, pumping station and everywhere there is service in the measurement of oil, gas, gasolene, steam and water. Every effort has been made to make the most accurate and economical meters possible. That our efforts have been rewarded is evidenced by the reputation gained by Metric Meters for accuracy—which is the final test.

WESTCOTT & GREIS, INC.
Sales Service

DALLAS TULSA LOS ANGELES

METRIC METAL WORKS

of the American Meter Company-Inc.

ERIE - PENNSYLVANIA - U-S-A

New Gumbo Buster, Oil Tight, Cone Bearing 4" and 6"

SWIVEL

Cone Bearing

Thirteen cones (of special steel) and upper and lower bearing plates are ground in sets assuring perfect fit and uniform distribution of load over bearing plate. The bearing plates are tested for hardness and cones are submerged in oil.

End Thrust

A ball bearing has been provided between the swivel stem head and upper member of swivel housing, which prevents friction and takes care of END THRUST when spudding.

Suspension and Balance

Suspension entirely on trunnions and no weight suspended on studs. Design and weight proportioned to insure perfect balance.

Oiling and Packing

Extra large oil reservoir and conveniently located oil holes for draining and refilling. Glands so constructed as to render it impossible for slush to reach cones. All stuffing box glands easily accessible and ample space provided for packing. This reduces possibility of sandy and gritty fluid cutting around wash pipe.

No Freezing of Grief Joint Connection

The use of jam nut provided will prevent freezing of connection between swivel and grief joint.

Fewer Parts

There are fewer working parts in this swivel and this simplicity of construction means more durability and less replacement costs.

Ask Any User

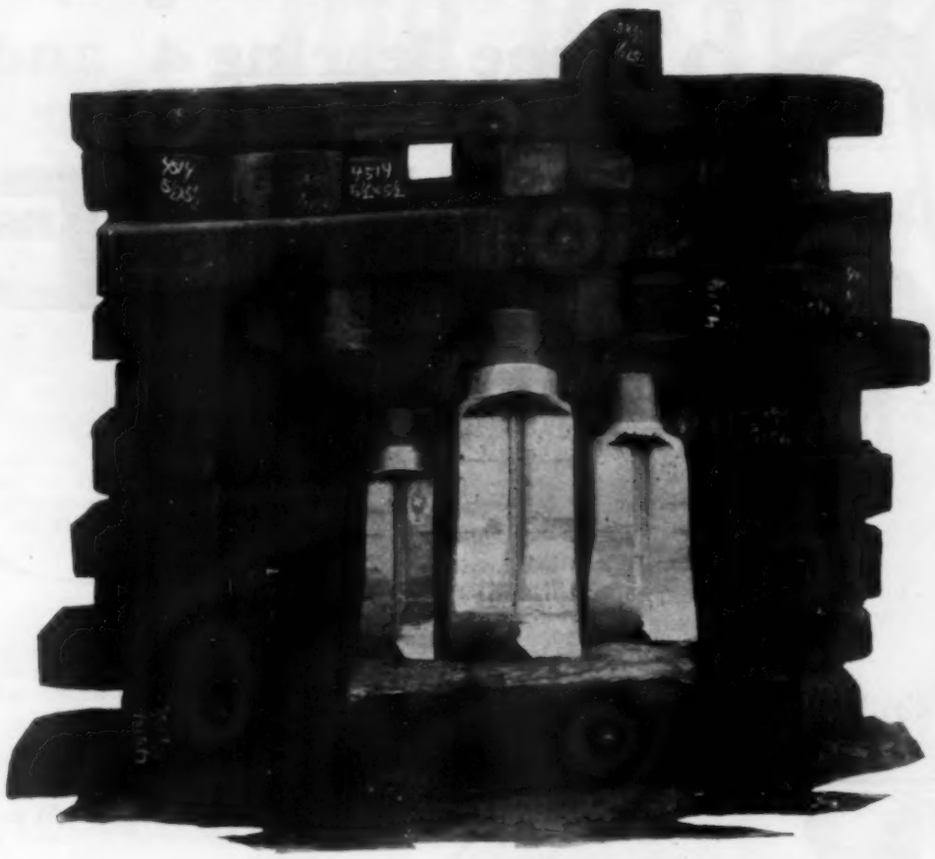
Stocked and sold by

Republic Supply Company

OIL AND GAS WELL SUPPLIES

ROTARY AND CABLE TOOLS AT STORES THROUGHOUT

OKLAHOMA TEXAS ARKANSAS LOUISIANA



A Pile of Happiness for Some Driller

Somewhere there's a driller who is going to get bits made from this pile of Agathon Alloy Steel billets. And when he does, he's going to find out what a poor sport rock is when it meets real steel. For those bits are going to chew up three times as much rock per hour than bits made of ordinary steel ever thought of doing. And they'll do it with one third of the pullings—one third of the delays and at a tremendous saving in dollars and cents. Better send for our Agathon Alloy Steel handbook and see that your next order of bits are made of these super-steels.

Photo shows pile of Agathon Alloy Steel billets at plant of the Lone Star Tool Company, Wichita Falls, Texas.

AGATHON STEELS

THE CENTRAL STEEL COMPANY, Massillon, Ohio

Swetland Bldg., Cleveland — Book Bldg., Detroit — Peoples Gas Bldg., Chicago
Aeolian Bldg., New York — University Block, Syracuse — Widener Bldg., Philadelphia
303 W. P. Story Bldg., Los Angeles, California. 404 West First Street, Tulsa, Okla.

AGATHON ALLOY STEELS

Regan Pipe Suspension and Control Head

—embodies 4 outstanding features.

1. Pipe Suspension
2. Pressure Control
3. Space Conservation
4. Fire Prevention

Patented

Every drilling well is a potential producer and the ever-present danger of its blowing wild, with resulting cratering, consequent flooding of oil sands, danger to life and destruction to property, makes necessary the installation of this head. After the well is finally put on production this Head also provides a positive and most effective means of holding back the gas pressure, using the minimum volume to produce a given amount of oil. This action tends to PREVENT INFILTRATION of water into the producing sands, consequently lengthening the life of the field.

Ask for Catalog

Regan
Forge & Engineering Co.
San Pedro California

Quality — Wrought on the Regan 5 Spindles

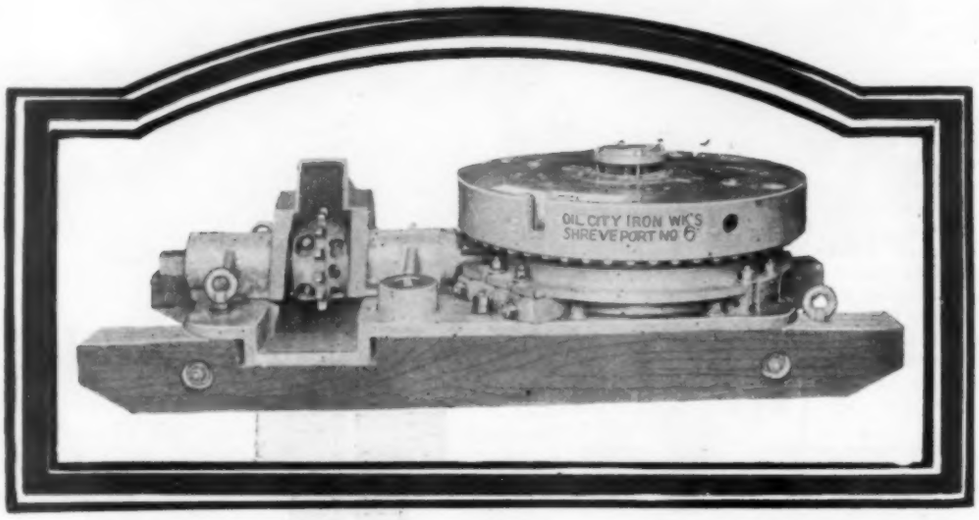
Distributors:

Regan Sales Company
Box 1058, San Pedro, Calif.
Houston, Tex., 1521 Post-Dispatch Bldg.,
Tulsa, Okla., 227 Mayo Bldg.
New York, N. Y., 75 West St.
Tampico, Mexico, J. W. Allen, Apdo 1064

O. C. I. W.

Steel Make and Break Rotary No. 6

All working parts, only a few in number, are automatically lubricated, insuring long life and minimum upkeep.



The make and Break feature is simple, yet the most efficient method of breaking out or making up pipe by means of a Rotary

Write for Details and Prices

Oil City Iron Works

Manufacturers of

Better Oil Field Equipment and Supplies

Shreveport, Louisiana

For That Texas Wildcat!

Leidecker Spiral Bits

Patented
Other Patents Pending

Patented
Other Patents Pending

Spiral Bits offer a very effective means of straightening crooked holes.

Faster, Easier, Straighter means a lot to these wildcat operations.

Leidecker Spiral Bits are handled by progressive Supply Houses everywhere.

"After using the Spiral Bits and getting the hole straight — my troubles were over" .... says a well known producer.

COLUMBINE OIL CO.
812 DETWILER BUILDING
LOS ANGELES

Sanderson, Texas
7 - 31 - '26.

Mr Glen. Leidecker
The Leidecker Tool Co.
Casper, Wyoming.

Dear Glen ;

Enclosed find my check for the spiral bits which you shipped to me recently.

I was having lots of trouble with crooked holes in the Edwards Lime Stone which was full of crystallized boulders. After using the spiral bits and getting the hole straight my troubles were over for the bits are giving perfect satisfaction.

I am down here on the Mexican border trying to develope an oil field. So far I have drilled one well and am 1350 Ft. in this hole and expect the pay if any in the next 700 Ft. I am also starting another well close to Del Rio Texas sometime soon.

This well here at Sanderson is a wild, wild Cat but I believe there is going to be lots of drilling in this part of the country in the next year.

Thanking you for past favors and with kindest regards

I am yours truly

E. T. Williams

Manufactured exclusively by

THE LEIDECKER TOOL COMPANY

Marietta, Ohio

Bartlesville, Okla. *Basin, Wyoming* *Casper, Wyoming*

SPIRAL DRILLING TOOL COMPANY, 329 East Fourth St., TULSA, Okla. Phone 3-1050
Export Office—90 West St., New York City.

Look into this valve business— and avoid making costly mistakes

If Darling Gate Valves weren't any better than any other valves there would be no excuse for making comparisons. But they are better—a whole lot better, and here's why—

THEY OPERATE EASILY because the pressure of the wedges against the discs is released at the first turn of the wheel, allowing the discs to ascend free and clear of seats. In closing, no pressure is put on the discs until just before they are tight shut; then the wedges force them squarely against the seats, making a perfect seal.

THEY CLOSE TIGHT because the discs are free to revolve with each operation—thus seating in a new clean position.

THEY LAST LONGER because the ground faces of the discs are self-cleaning; there are no pockets or ribs to collect sediment or scale; and because they are honestly made of materials best suited for oil field work.

For your own satisfaction compare Darling Gate Valves with any other make—or better still, ask any Old Timer what luck he has had with Darlings.

DARLING VALVE & MANUFACTURING CO.

Main Office: Williamsport, Pa.

New York Chicago Oklahoma City Houston

MID-CONTINENT DISTRIBUTORS:
Frick-Reid Supply Company
International Supply Company
Atlas Supply Company
Petroleum Supply Company

CALIFORNIA DISTRIBUTOR:
Petroleum Equipment Company, Los Angeles

DARLING GATE VALVES

Say you saw it in The OIL WEEKLY

Dependable Supplies and Service

Specialists on

Valves and Fittings

Lunkenheimer Valves and Fittings
Kerotest Refinery and Field Valves

A complete line of iron, steel, and brass fittings for all field, refinery and pipe line uses.

Prompt Shipment **Real Service.**

Send for Copy of Our Catalog

NORVELL WILDER HARDWARE CO.

BEAUMONT HOUSTON SHREVEPORT FORT WORTH

A Good Name Is Priceless!

Buried deep in every Jefferson pipe fitting is the innate quality that has kept the name Jefferson bright through years of dependable service. Operators, and others throughout the industry, recognize the pronounced advantages of Jefferson fittings, which include:

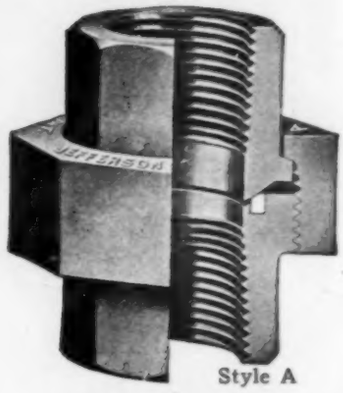
1. The Jefferson brass-to-iron joint, the ideal seat ring construction. Located in a groove, away from the runway of the fittings, the brass seat-ring cannot be dislodged, and is never in danger of injury. Our method of forcing the brass into the groove under high pressure explains why the brass cannot become loosened by expansion or contraction.
2. We employ only highest grade brass and air-refined malleable iron in the manufacture of these quality fittings.
3. Male and female parts are ground, tested and fitted together; Jeffersons come to you perfectly mated.
4. Briggs Standard Taper Threads assure leak-proof joints. Jeffersons are tight always.

Write for fully descriptive literature, sent without obligation.

Jefferson Union Company

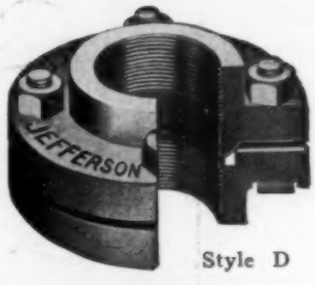
Lexington, Mass., U. S. A.

Handled by all leading Oil Industry Distributors



Style A

Style B



Style D

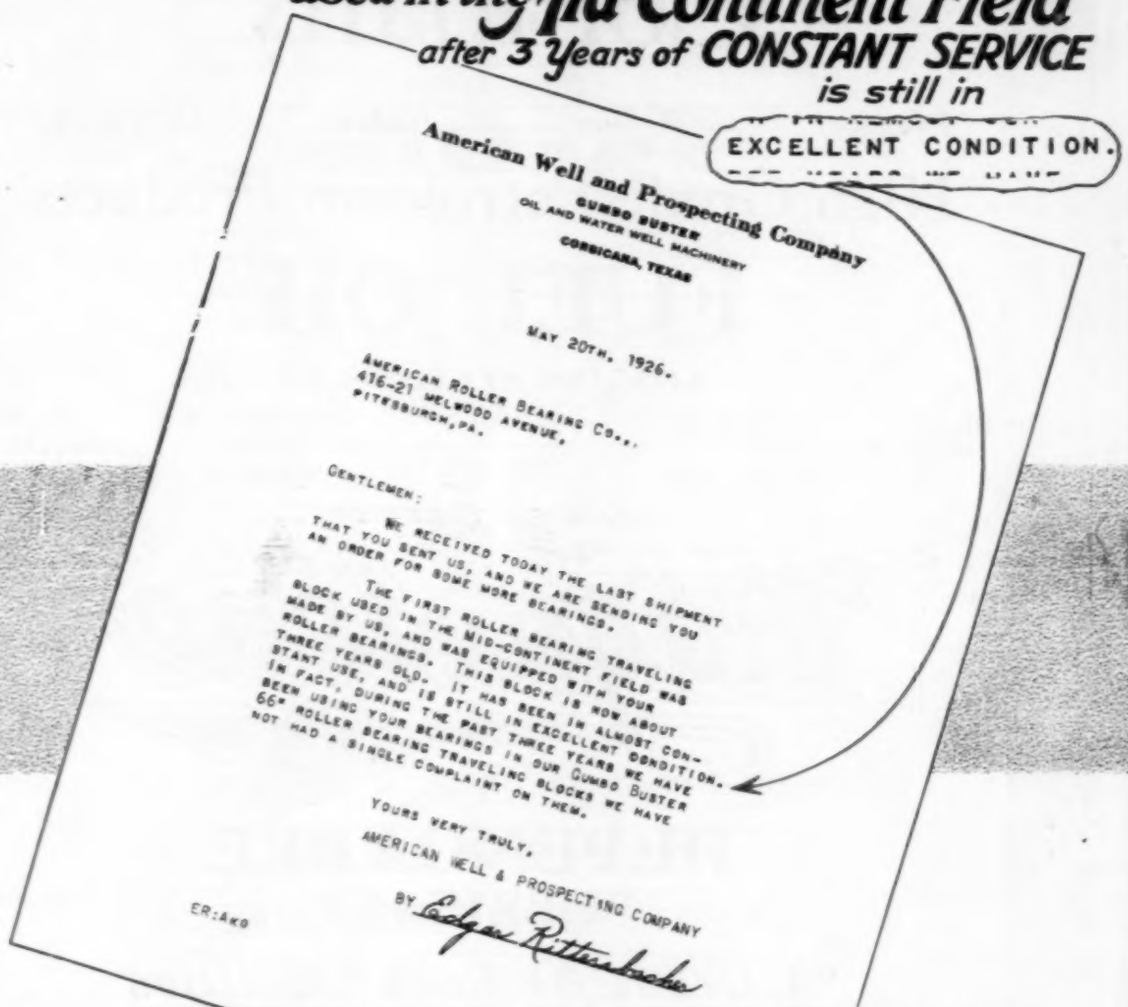
Style E

JEFFERSON

Say you saw it in The OIL WEEKLY

The 1st Roller Bearing TRAVELING BLOCK

used in the Mid-Continent Field after 3 Years of CONSTANT SERVICE is still in EXCELLENT CONDITION.



American Well and Prospecting Company
GUMBO BUSTER
OIL AND WATER WELL MACHINERY
CORSICANA, TEXAS

MAY 20TH, 1926.

AMERICAN ROLLER BEARING CO.,
416-21 MELWOOD AVENUE,
PITTSBURGH, PA.

GENTLEMEN:

WE RECEIVED TODAY THE LAST SHIPMENT THAT YOU SENT US, AND WE ARE SENDING YOU AN ORDER FOR SOME MORE BEARINGS.

THE FIRST ROLLER BEARING TRAVELING BLOCK USED IN THE MID-CONTINENT FIELD WAS MADE BY US, AND WAS EQUIPPED WITH YOUR ROLLER BEARINGS. THIS BLOCK IS NOW ABOUT THREE YEARS OLD. IT HAS BEEN IN ALMOST CONSTANT USE, AND IS STILL IN EXCELLENT CONDITION. IN FACT, DURING THE PAST THREE YEARS WE HAVE BEEN USING YOUR BEARINGS IN OUR GUMBO BUSTER 66" ROLLER BEARING TRAVELING BLOCKS WE HAVE NOT HAD A SINGLE COMPLAINT ON THEM.

YOURS VERY TRULY,
AMERICAN WELL & PROSPECTING COMPANY
BY Edgar Rittenhouse

ER:AKO

ANY BLOCK-TRAVELING-OR CROWN-ANY REVERSE CLUTCH, HOIST OR WINCH, EQUIPPED WITH

AMERICAN HEAVY DUTY TYPE "C" ROLLER BEARINGS

WILL RUN FASTER AND SMOOTHER AND LONGER THAN SIMILAR EQUIPMENT HAVING ONLY PLAIN BEARINGS.

LARGEST MANUFACTURERS OF ROLLER BEARINGS FOR INDUSTRIAL PURPOSES

AMERICAN ROLLER BEARING CO.
PITTSBURGH, PENNA.

SPECIALISTS IN PRODUCTION OF ROLLER BEARINGS FOR THE OIL INDUSTRY

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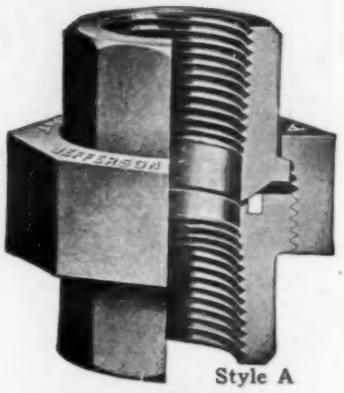

Style A

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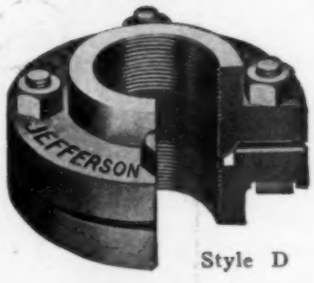

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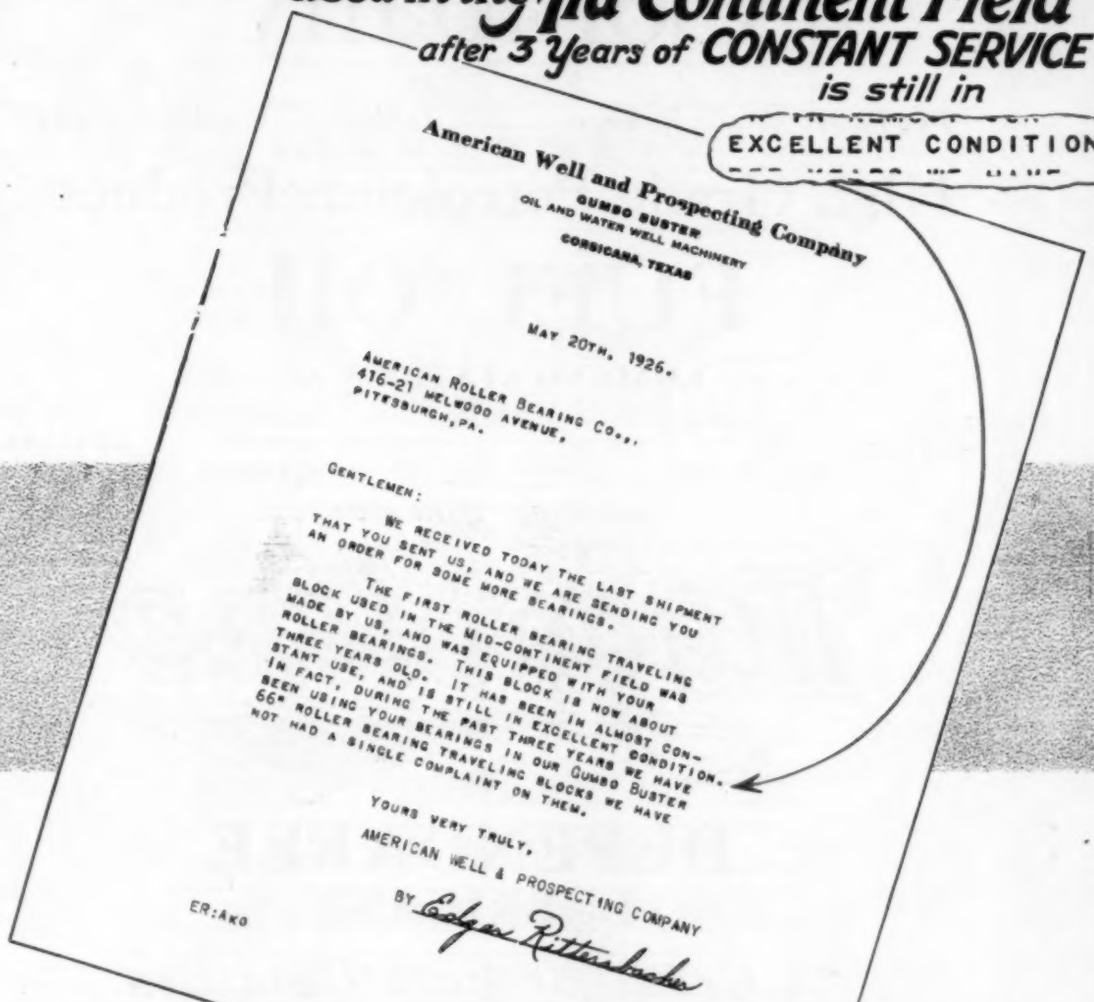

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AMERICAN ROLLER BEARING CO.
PITTSBURGH, PENNA.

SPECIALISTS IN PRODUCTION OF ROLLER BEARINGS FOR THE OIL INDUSTRY

Magnolia Petroleum Company

Producer *Refiner* *Jobber* *Distributer*

High Grade Petroleum Products

FUEL OIL

LOADING STATIONS AT

BEAUMONT CORSICANA SABINE GALVESTON FT. WORTH
HARBOR ISLAND LULING CORPUS CHRISTI DALLAS
HERMA, ARK. MIRANDO

MANUFACTURER OF

Magnolene
REG. U.S. PAT. OFFICE

THE

DEPENDABLE LUBRICANT

"A Grade for Each Condition

For satisfactory operation of Ford Cars use Magnolene Motor Oil for Fords

REFINERIES LOCATED AT

Beaumont, Corsicana and Ft. Worth

General Offices: DALLAS, TEXAS

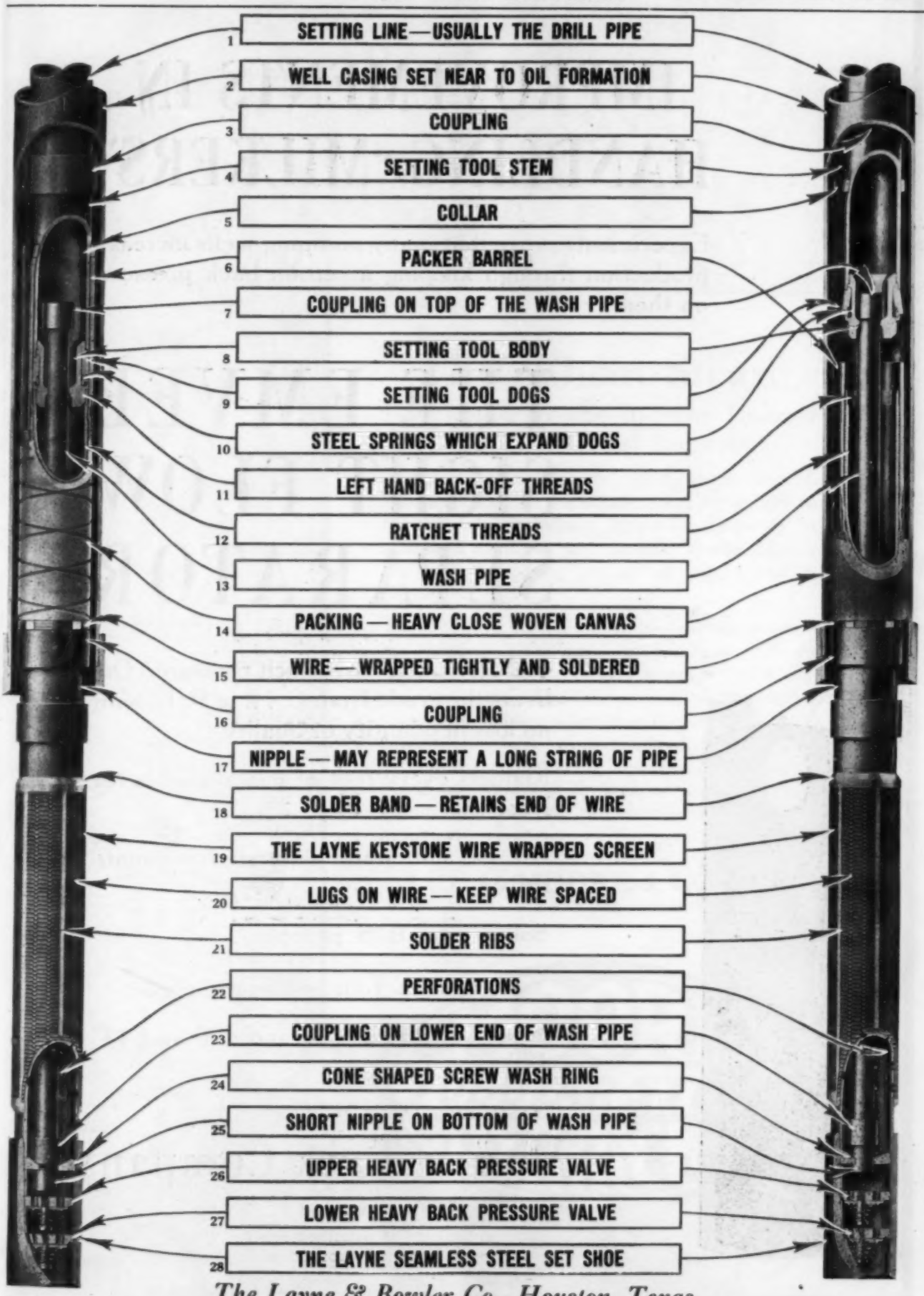
DIVISION SALES OFFICES:

DALLAS HOUSTON FT. WORTH SAN ANTONIO OKLAHOMA CITY LITTLE ROCK
AMARILLO EL PASO

Inquiries Respectfully Solicited

Say you saw it in The OIL WEEKLY

Use Layne Screens and Packers


1 SETTING LINE—USUALLY THE DRILL PIPE
2 WELL CASING SET NEAR TO OIL FORMATION
3 COUPLING
4 SETTING TOOL STEM
5 COLLAR
6 PACKER BARREL
7 COUPLING ON TOP OF THE WASH PIPE
8 SETTING TOOL BODY
9 SETTING TOOL DOGS
10 STEEL SPRINGS WHICH EXPAND DOGS
11 LEFT HAND BACK-OFF THREADS
12 RATCHET THREADS
13 WASH PIPE
14 PACKING—HEAVY CLOSE WOVEN CANVAS
15 WIRE—WRAPPED TIGHTLY AND SOLDERED
16 COUPLING
17 NIPPLE—MAY REPRESENT A LONG STRING OF PIPE
18 SOLDER BAND—RETAINS END OF WIRE
19 THE LAYNE KEYSTONE WIRE WRAPPED SCREEN
20 LUGS ON WIRE—KEEP WIRE SPACED
21 SOLDER RIBS
22 PERFORATIONS
23 COUPLING ON LOWER END OF WASH PIPE
24 CONE SHAPED SCREW WASH RING
25 SHORT NIPPLE ON BOTTOM OF WASH PIPE
26 UPPER HEAVY BACK PRESSURE VALVE
27 LOWER HEAVY BACK PRESSURE VALVE
28 THE LAYNE SEAMLESS STEEL SET SHOE

The Layne & Bowler Co., Houston, Texas

IMPROVEMENTS IN HANDLING "MILKERS"

Experiments prove that many pumping wells increase production through keeping a certain back pressure on them.

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enables you to carry such pressure. Delivers the crude from C. H. to P. L. with no loss in quantity or quality.

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MOORE TUBULAR STEEL DERRICKS

INDEX TO ADVERTISERS

A

Acme Fishing Tool Company ..... Inside front cover
Aetna Ball Bearing Mfg. Co. ..... *
Ajax Iron Works 40-41
Alco Oil Tool Co. ..... *
Aluminum Company of America ..... *
Amarillo Abstract Company 90
Amarillo Cable Company ..... *
American Roller Bearing Co. 15
American Telephone & Telegraph Co. ..... *
American Well Works ..... *
Andrews Steel Company 89
Athey Truss Wheel Company ..... *
Axelson Machine Company ..... *

B

Bash-Ross Tool Company 84
Baird Supply Company ..... *
Baird Tool Works ..... *
Baker Casing Shoe Company ..... *
Barnickel, Wm. S., Company 83
Becker Specialty Company 82
Bessemer Gas Engine Company ..... *
Braden Steel & Winch Company ..... *
Bridgeport Machine Company ..Back cover
Buckeye Traction Ditcher Company 89
Bullock, Henry E. 58
Burns Tool Company ..... *
Burt Corporation ..... *
Butler Manufacturing Company ..... *
Byron Jackson Pump Company ..... *

C

Cameron Iron Works ..... *
Carter, O. M. 55
Central Steel Company 8
Central Tube Company 86
Clark Bros. Company ..... *
Climax Engineering Company 95
Coatesville Boiler Works ..... *
Columbus Sucker Rod Company, The ..... *
Continental Motors Corp. 24
Continental Supply Company 21
Cornell & Company ..... *
Crago Gear and Machine Works ..... *
Cyclone Fence Co. ..... *

D

D & B Pump & Supply Company 57
Darling Valve Manufacturing Company 12
De La Vergne Machine Company ..... *
Dunn Manufacturing Company 73

E

Eagle Picher Lead Company ..... *
Eastern Texas Electric Company ..... *
Eastern Torpedo of Ohio Company ..... *
Eclipse Paint & Mfg. Company ..... *
Elliott Core Drilling Company ..... *
Emsco Derrick & Equipment Company 45

F

Federal Supply Company ..... *
Fire Proof Tank Cover and Condenser Co... *
Fort Worth Laboratories 90
Franklin Valveless Engine Company 33
Frick-Reid Supply Company 97

G

Gardner Governor Company ..... *
Gaso Pump & Burner Mfg. Company 3
General American Tank Car Corp. ..... *
General Electric Company ..... *
Gott, H. P., Manufacturing Company 86
Goulds Pumps, Inc. ..... *
Graham Brothers ..... *
Greenspon's Jos. Sons Iron and Steel Co... 87
Guiberson Corporation 61
Gulf Coast Machine & Supply Co. ..... *
Gulf Refining Company 98

H

Halliburton Oil Well Cementing Co. 1
Hardway & Cathey 90
Harrisburg Pipe & Pipe Bending Co. ..... *
Harrisburg Pipe & Pipe Bending Co. of Texas ..... *
Hercules Motors Corporation ..... *
Hercules Supply Company ..... *
Heydrick Mapping Company 90
Hinderliter Tool Company ..... *
Hirsch & Brown ..... *
Hope Engineering & Supply Company ..... *
Hopkins, Edwin B. 91
Houston National Bank ..... *
Houston Pump & Supply Company ..... *
Hough Manufacturing Co., Charles N. 85
Hughes Tool Company ..... Front cover
Humble Oil & Refining Company ..... *

I

International Derrick & Equipment Co. 4-5
International Supply Company 47
International Vacuum Drilling & Coring Co. *
Iron King Manufacturing Company ..... *

J

Jarecki Manufacturing Company ..... *
Jefferson Union Company 14
Jensen Bros. Manufacturing Company ..... *
Jones Company, The S. M. 88
Jones-McLaughlin, Inc. ..... *
Johns-Manville, Inc. ..... *

K

Kansas City Hay Press Company ..... *
Kerotest Manufacturing Company ..... *
Keystone Pipe & Supply Company 86
Kobe, Incorporated 64

L

Lancaster & Allwine 90
Landis Machine Company ..... *
Larkin & Company ..... *
Layne & Bowler 17
Le Bus Rotary Tool Works 75
Leidecker Tool Company 11
Leonard, P. G. 91
Lorraine Corporation 71
Lucey Manufacturing Corporation ..... *
Ludlow Valve Manufacturing Company .... *
Ludlum Steel Company ..... *
Lunkenheimer Company ..... *

M

M & V Tank Company 18
MacClatchie Mfg. Company ..... *
Magnolia Petroleum Company 16
Maloney Tank Mfg. Company 85
Manzel Brothers Company ..... *
Marco Light & Power Corp. 87
Maverick, Phillip 90
McEvoy, J. H., & Company ..... *
McIntosh & Seymour Corporation ..... *
Meier Lubricating Co., The E. C. ..... *
Metric Metal Works 6
Mexia Planing Mill 91
Mission Sales Company ..... *
Morrissey Torpedo Company ..... *
Moore, Lee C., & Company 19

N

National Pigments & Chemical Co. 87
National Supply Companies 77
National Transit Pump & Machine Co. 83
National Tube Company ..... *
National Turnbuckle Derrick Co. ..... *
Neal Lucey Company ..... *
Norris Brothers, Inc. ..... *
Northrup Equipment Company ..... *
Norvell-Wilder Hardware Company 13
Nuttall Company, R. D. ..... *

O

Oertling, Ltd., L. ..... *
Oil City Iron Works 16
Oil Country Specialties Mfg. Company ..... *
Oil Field Tool Company ..... *
Oilwell Accessories Corporation ..... *
Oil Well Specialties Co. 44
Oil Well Supply Company 31
Osage Agency 87

P

Parkersburg Rig & Reel Company ..... *
Patton Bros. Company 95
Peden Iron & Steel Company 84
Petroleum Iron Works ..... *
Petroleum Rectifying Company 67
Petroleum Registe , The ..... *
Pioneer Tank & Boiler Company ..... *
Pittsburgh Steel Products Co. 22
Price, W. Armstrong ..... *

R

Ranney Oil Mining Company 90
Ratigan, J. P. ..... *
Reading Iron Company 81
Reed Air Filter Company ..... *
Reed Roller Bit Company ..Inside back cover
Regan Forge & Engineering Company 9
Reid, Joseph, Gas Engine Company ..... *
Rex Supply Company 7
Ring, Dewitt T. 91

S

Sargent Engineering Co p. 79
Shaffer, J. E., Company ..... *
Shaffer Specialty Company ..... *
Sinclair Refining Company 63
Sivyer Steel Casting Company ..... *
Smith, H. C., Manufacturing Company 53
Howard Smith Company ..... *
Smith Separator Company 69
South Chester Tube Company ..... *
Southern Brass Mfg. & Plating Co. 91
Southern Engine & Pump Company ..... *
Spang & Company ..... *
Standard Rail & Steel Co. 82
Standard Seamless Tube Co. 49
Star Drilling Machine Company, The ..... *
States Engineering Company ..... *
Steiner, Dr. George 90
Stone, Jesse R. 90
Sullivan Machinery Company ..... *
Sullivan Co., The ..... *

T

Taubman Supply Corp. ..... *
The Texas Company ..... *
Templeton, Kenly & Co., Ltd. ..... *
Texas Cyclone Fence Company ..... *
Texas Oil Pump Co. ..... *
Texas Pipe & Supply Company ..... *
Titusville Iron Works, The ..... *
Trimont Mfg. Co. ..... *
Trinity Portland Cement Company ..... *
Trumble Gas Trap Company 88
Tyler Tube & Pipe Company, The 89

U

Union Machine Co. ..... *
United Iron Works 59
United States Torpedo Company ..... *

W

Waldron Corporation, John ..... *
Ward Chemical Company ..... *
Waukesha Motor Company 92
Webster, C. W. 90
Westcott & Greis, Inc. ..... *
Western Iron & Foundry Company ..... *
Wheeling Steel Corporation ..... *
Wickwire-Spencer Steel Company, Inc. .... *
Williams & Co., J. H. ..... *
Williamsport Wire Rope Company ..... *
Wilson Oil Tools Corporation 90
W-K-M Company ..... *

Y

Yale & Towne Company ..... *
Young Drilling Engine Company, W. T. .. *

Z

Zelnicker, Walter A. 90
Zero Hour Torpedo Company ..... *

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September 10, 1926 Volume 42, Number 12

The OIL WEEKLY

TABLE OF CONTENTS

CURRENT NEWS AND TRADE ARTICLES

Conservation Board Suggests Unit Operation But Shys at Saying How 25

Turner Valley Most Active Spot of Canadian Oil Search 29
Staff Special.

Huntington Beach's Town-Lot Drilling Boom Promises Disappointment 32
By Wm. V. Gross

Every Step of Construction of Cities Service Gas Line Had Rigid Inspection 34

Efficient Automatic Boiler Controls Made Entirely on Lease 37
By George Reid

Latest Nash Dome Producer Is Field's Best One 39

Doheny-Fall Indictments Charge No Crime 39

Phillips Wildcat Producer Opens Up New Territory in West Texas..... 39

Doherty Caustic in Criticism of Hughes' Talk 46
By Clarence L. Linz

Thirteen Million Barrels Steel Storage Provided in Panhandle..... 50

33 New Wells Starting at Seminole City 50

Garfield County Wildcat Has Oil in Wilcox 50

Survey of Steel Storage Tanks in Panhandle Section 50

More Than 1000 Wells Drilled or Drilling in Texas Panhandle..... 52
By H. H. King

More Wells But Little More Oil in Panhandle 52

Alaskan Wildcatting Needs Plenty of Capital 58

Vacuum Well at Lockport Makes 10,000 Barrels 58

REGULAR WEEKLY FEATURES

Personal Mention ..... *

Manufacturers and Supply Dealers Notes 56

Daily Average Production Figures for the Past Week by Fields..... 60

Condensed Daily Average Production Figures by Weeks for 1926..... 60

Crude Price Quotations 62

Completions in All U. S. Fields for the Past Week 65

Detailed Wildcat Drilling Reports for All Sections 72

New Wells Started—Permits Granted and Locations Made in California, Oklahoma, Kansas, Texas, Louisiana, Arkansas, Mountain States and Eastern States..... 80

New Equipment, Catalogs, Bulletins and Books of Interest to Producers 93

Letters of Paul Peebles, P. S. G..... 94

"Squeaks from the Bull Wheel"..... 96

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The OIL WEEKLY

TABLE OF CONTENTS

CURRENT NEWS AND TRADE ARTICLES

CONSERVATION BOARD SUGGESTS UNIT OPERATION BUT SHYS AT SAYING HOW 25

TURNER VALLEY MOST ACTIVE SPOT OF CANADIAN OIL SEARCH 29
Staff Special.

HUNTINGTON BEACH'S TOWN-LOT DRILLING BOOM PROMISES DISAPPOINTMENT 32
By Wm. V. Gross

EVERY STEP OF CONSTRUCTION OF CITIES SERVICE GAS LINE HAD RIGID INSPECTION 34

EFFICIENT AUTOMATIC BOILER CONTROLS MADE ENTIRELY ON LEASE 37
By George Reid

LATEST NASH DOME PRODUCER IS FIELD'S BEST ONE 39

DOHENY-FALL INDICTMENTS CHARGE NO CRIME 39

PHILLIPS WILDCAT PRODUCER OPENS UP NEW TERRITORY IN WEST TEXAS..... 39

DOHERTY CAUSTIC IN CRITICISM OF HUGHES' TALK 46
By Clarence L. Linz

THIRTEEN MILLION BARRELS STEEL STORAGE PROVIDED IN PANHANDLE..... 50

33 NEW WELLS STARTING AT SEMINOLE CITY 50

GARFIELD COUNTY WILDCAT HAS OIL IN WILCOX 50

SURVEY OF STEEL STORAGE TANKS IN PANHANDLE SECTION 50

MORE THAN 1000 WELLS DRILLED OR DRILLING IN TEXAS PANHANDLE..... 52
By H. H. King

MORE WELLS BUT LITTLE MORE OIL IN PANHANDLE 52

ALASKAN WILDCATTING NEEDS PLENTY OF CAPITAL 58

VACUUM WELL AT LOCKPORT MAKES 10,000 BARRELS 58

REGULAR WEEKLY FEATURES

PERSONAL MENTION ..... *

MANUFACTURERS AND SUPPLY DEALERS NOTES 56

DAILY AVERAGE PRODUCTION FIGURES FOR THE PAST WEEK BY FIELDS..... 60

CONDENSED DAILY AVERAGE PRODUCTION FIGURES BY WEEKS FOR 1926..... 60

CRUDE PRICE QUOTATIONS 62

COMPLETIONS IN ALL U. S. FIELDS FOR THE PAST WEEK 65

DETAILED WILDCAT DRILLING REPORTS FOR ALL SECTIONS 72

NEW WELLS STARTED—PERMITS GRANTED AND LOCATIONS MADE IN CALIFORNIA, OKLAHOMA, KANSAS, TEXAS, LOUISIANA, ARKANSAS, MOUNTAIN STATES AND EASTERN STATES..... 80

NEW EQUIPMENT, CATALOGS, BULLETINS AND BOOKS OF INTEREST TO PRODUCERS 93

LETTERS OF PAUL PEEBLES, P. S. G..... 94

"SQUEAKS FROM THE BULL WHEEL"..... 96

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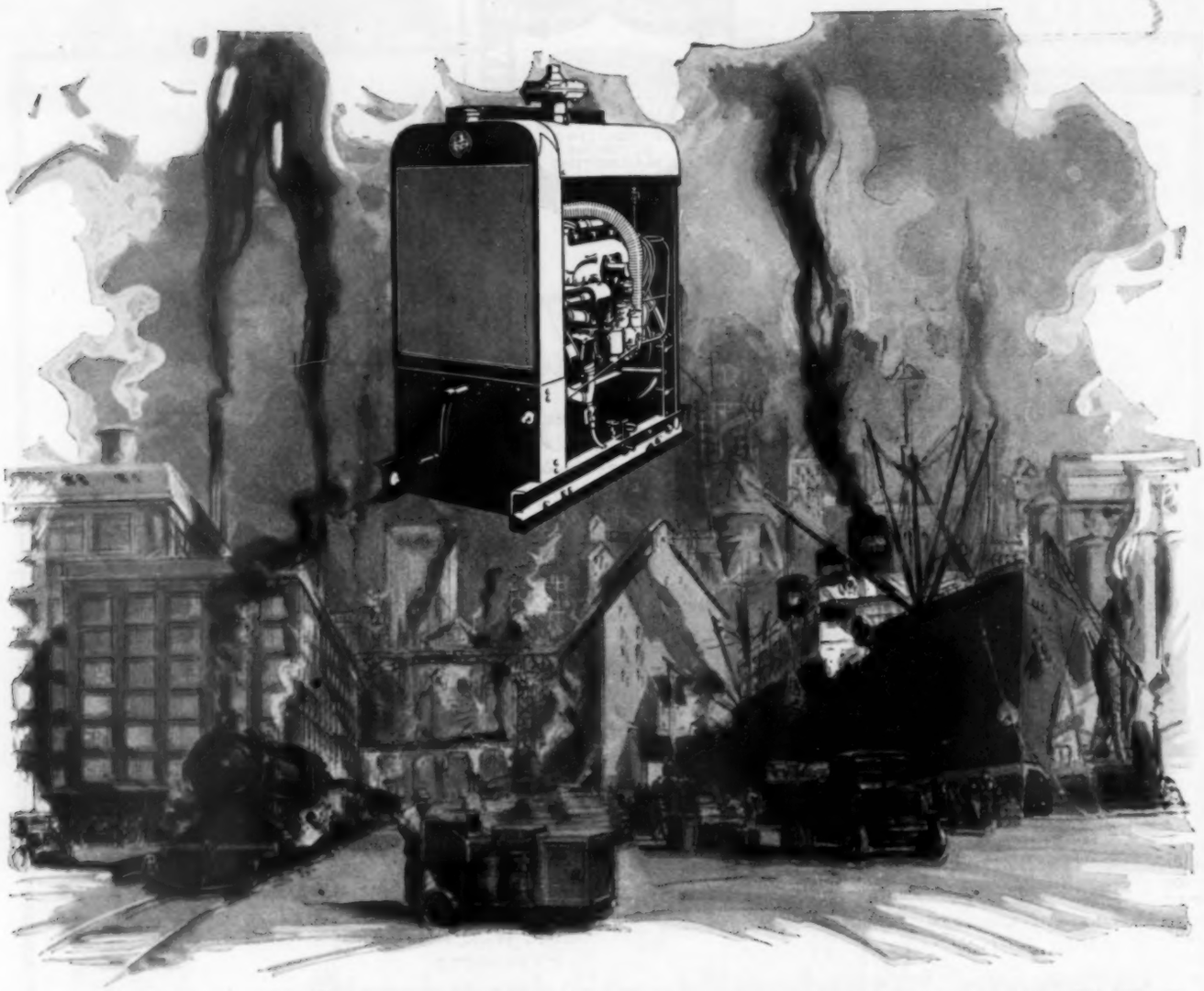

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Conservation Board Suggests Unit Operation But Shys at Saying How

First of three reports to President issued after more than year of investigation

Washington, D. C.—A preliminary report by the Oil Conservation Board, signed by Secretaries Davis, Wilbur, Work and Hoover, was this week submitted to President Coolidge. This is the first of three reports which the Board will make, covering more than a year of investigation into the oil situation.

The report of the Board, in full, is as follows:

To the President of the United States:

The Federal Oil Conservation Board, consisting of the Secretaries of War, Navy, Interior, and Commerce, and designated by you under date of December 19, 1924, to give exhaustive consideration to the question of national petroleum conditions, respectfully submits the following preliminary report of its operations to date.

This preliminary report, treating of national petroleum conditions, is intended to present certain facts contributed by the oil industry or gathered by Government scientists. The facts and opinions received from these sources have been weighed with open minds, without conscious prejudice or thought of confirming theories already conceived.

There are two sides to this nationally important question that must be weighed wholly free from individual bias; each side has its proponents, and both sides are entitled to respectful consideration.

Many producers claim that the supply of petroleum, having heretofore been equal to the demand, probably always will be and, should time prove the contrary, that substitutes for both lubricants and gasoline will be devised by science.

Other producers argue that almost every natural resource is limited and may be exhausted by wasteful use; to illustrate, they cite depletion of soil fertility, timber, and even fish in the sea, the exhaustion of old fields and the diminishing flow of all wells. They argue further that without discovery of new fields the present rate of production can not be maintained, and therefore urge that, as new discoveries are uncertain, improved methods of recovery, less waste, more ground storage, and checking of competitive haste in drilling, are economic provisions that should be enforced.

These conflicting opinions are based partly upon facts and partly upon conjectures. Such opinions are valuable only in proportion to the logic of their reasons, which therefore must be understood and analyzed. It is hoped that this preliminary report, conscientiously prepared under the direction of this Board by scientific men burdened by exacting daily routine duties, may furnish a concise picture of the true conditions as determined by the inquiry of this Board.

HUBERT WORK,
Chairman.

Through the Government departments an extensive inquiry has been made into the oil industry and a mass of essential facts has been developed covering every phase of the problem of our present and future supplies. The Board has had the advantage of not only the research and cooperation of the government scientific bureaus but also the cooperation of the oil industry in the illumination of the many problems and conditions surrounding production, transportation, refining, distribution, use, consumption of petroleum and its products, and the probable available future supplies. Public hearings have been held and opinions of leaders in the oil industry have been fully brought out. This report is entirely preliminary and supplemental reports are to follow, treating extensively of the different phases touched upon in this short summary.

Uncertainty of Supply.

There must be natural concern over our future supply of oil because of the manifest dependence of so large a part of our industrial life, national defense, and domestic comfort upon continued adequate supplies of lubricants for all machinery and fuel for automotive engines. Our future resources in coal and iron have been so determined by geological evidence and exploration that we can measure our proved supplies by centuries. But the local character of oil deposits, their geological uncertainty, and the vast amount of unproductive capital required for long advance exploration prevent any such advance proof in the case of oil. The very nature of all minerals, in that they do not reproduce themselves, of course renders their extraction a depletion of assets. And therefore the resources of oil which are proven at any given moment can not from the nature of things be otherwise than a reserve against current production. They do not imply future production of oil.

The total present reserves in pumping and flowing wells in the proven sands has been estimated at about four and one-half billion barrels, which is theoretically but six years' supply, though, of course, it can not be extracted so quickly. Another addition to this natural cause of anxiety for future supplies lies in the fact that the maximum rate of production from all fields is in their early days before gas pressures which expel the oil are diminished, and thus of the current production more than one-half is coming from about 4 per cent of the producing wells—for the most part only a year or so old—and from fields that have been discovered within the past five years. Therefore future maintenance of even current supplies implies the constant discovery of new fields and the drilling of new wells, and thus the maintenance of this large ratio of flush production. Hitherto there has been no failure to discover such new fields as required. However, this dependence upon fortuitous discovery of new fields renders it imperative that every effort shall be made to secure the maximum amount of oil from the known fields and the most beneficial use of the oil that is produced.

It was the purpose of the President in the establishment of this Board that these problems be adequately considered and that the major facts thereon be presented to the public, and that, in cooperation with the industry, conservative policies of conservation should be developed.

Development and Production.

The first successful oil well was drilled in northwestern Pennsylvania in 1859. During this period of 67 years, over 680 000 wells have been drilled, of which more than 20 per cent were failures, and to the end of June, 1926, over 9,000,000,000 barrels of crude oil have been produced, one-third of this in less than five years with the production for 1925 exceeding 750,000,000 barrels. The United States produces about 70 per cent of the total world production and consumes about the same percentage of the total. Oil in commercial quantities is produced in 19 States ranking in importance of producing, in 1925, California, 230,000,000 barrels; Oklahoma, 177,000,000 barrels; Texas, 143,000,000 barrels; etc.

In addition to crude oil, the same sands produce vast quantities of natural gas. No figures are available on the total amount of gas produced by wells that also produce oil, but the volume is large, and in some fields a comparatively large percentage is wasted into the air. This waste of natural gas, incident to the past and present methods of capturing oil at the surface, is occasioned by blowing the gas into the air to hasten the flow of oil from the wells. It has been estimated that in the Cushing Field in Oklahoma at one period there was an average daily waste of 300,000 000 cubic feet of natural gas, or more than 100,000,000,000 cubic feet in the course of a year, the equivalent of 5,500,-000 tons of coal. Vast wastage of gas has occurred at Cromwell, Oklahoma; Burkburnett, Texas; and El Dorado and Smackover, Arkansas; and at several of the fields in the Los Angeles Basin. The dissipation of this gas by letting the wells produce wide open was a triple waste, containing, as it did, large quantities of casinghead gasoline with the fuel value in addition and being capable of much more effective use for recovering oil from the sands.

About 300,000 wells were producing in 1925, the oil being transported from the wells by more than 40,000 miles of trunk pipe lines and 40,000 miles of gathering lines. The industry also employs some 142,000 tank cars and about 400 tank steamships for crude transportation and for distribution of refined products. There are some 500 refineries. The total investment in producing wells, transportation, refining and marketing equipment exceeds $9,500,000,-

CONSERVATION BOARD'S PRELIMINARY REPORT

000. The total wholesale value of the products was $1,793,-700,087 in 1923*

*Latest figures available.

Distribution of Use.

The following table indicates the fractions into which the 1925 production was split by refinement:

Gasoline, straight distillation	7,294,000,000	gals.	23.4%
Gasoline, cracked	2,824,000,000	"	9.1
Kerosene	2,510,000,000	"	8.1
Lubricants	1,301,000,000	"	4.2
Gas Oil and Fuel Oil	15,279,000,000	"	49.3
Wax	591,000,000	tons	1.7
Coke	991,000	tons	
Asphalt	2,638,000	lbs.	
Other finished oils	339,900,000	gals.	1.1
Losses	952,000,000	"	3.1

In addition, 760,000,000 gallons of natural gas gasoline was brought to the refineries and either run through the stills or blended with gasoline to produce a finished motor fuel.

Known Fields.

The producing and proved area in the United States is asserted to be in excess of 3,000,000 acres, the fields varying in production in 1925 from a daily average of 197,650 barrels, for the Smackover field in Arkansas, to only a few barrels daily, for a number of the older fields in the country.

As the oil flows into the wells from the sands due to the pressure of natural gas the flush flow is always larger and tends to diminish with the release of gas pressure. The annual production during many years has been sustained by the discovery of sufficient new fields each year to maintain a very large contribution from this flush flow. Therefore, supply equal to our present demands hangs definitely upon the rather precarious basis of repeated new and important discoveries.

Future Reserves.

From the most recent estimates, it would appear that the reserves of oil available by flowing and pumping wells from present producing and proven fields amount to about 4,-500,000,000 barrels. Theoretically this is but six years supply, and it, of course, could not be produced rapidly enough to in itself maintain the present annual production of about 750,000,000 barrels. These reserves do not in themselves prove a shortening of supplies; nevertheless, as stated above, their life as compared to proven supplies of iron and coal, is such as always to maintain concern.

The provision of future supplies of essential oil products for the American people must arise from the following sources:

(1) The reserves above mentioned.
(2) The possible discovery of new sands in the known areas by deeper drilling.
(3) The possible discovery of new fields.
(4) Improved methods which will recover a larger proportion of the oil out of the sands.
(5) Better utilization of crude oils by diversion from less essential to more essential uses—such as conversion of fuel oil into gasoline.
(6) Better control of the flush flow from newly discovered fields.
(7) Economies in consumption by improved mechanical devices.
(8) Supplies from distillation of oil shales and coal.
(9) Foreign oil fields.

Proven Oil Fields.

In addition to the proven reserves at any one time, the known fields have in many cases proved of larger extent than at first estimated, due to the extension of the "fringes" of such fields. Particularly is this the result of opening new sands and in some instances the extension of known sands by deeper drilling. There have been great advances in the art of deep drilling during the past few years. The first successful well drilled—in 1859—was to a depth of 69 feet. The capacity of machinery for deeper drilling was steadily developed until, in 1925, an oil well 7,591 feet was completed in southern California. At various stages in development it has usually been asserted that no greater depths could physically be attained, yet almost every year demonstrates the penetration of still greater depths. As many of the oil sands slope into the earth, deeper drilling of known sands will bring still further production, as well as the discovery of deeper sands underneath those now being exploited.

Possible New Fields.

Certain parts of the country are known by their geology to be impossible of appreciable oil production. Such positively barren areas are estimated to aggregate 43 per cent of the total area of the United States. But this does not warrant the assumption that the remaining 1,100,000,000 acres of the country, or any large part of them, will be found oil bearing. Considerable portions of this area have already been drilled for oil or water. It is a certainty that we are learning each year more of geologic structure at the hands of a large body of public and private geologists but the percentage of dry holes in new exploration is increasing. To assert that no new fields will be found would be to deny a very strong law of probabilities. And we may conclude that such fields will be found, but obviously no forecast of their importance can be given.

Improved Methods of Recovery.

There is a wide variation in estimates of the amount of oil left underground in the sands after production ceases with ordinary methods of flowing and pumping which have been hitherto employed. The evidence before this Board shows the general belief of oil experts that not more than 25 per cent of the oil can be recovered by ordinary methods. Some leading authorities consider that less than one-sixth of the oil is so recovered. During recent years, a considerable amount of investigation and experimentation has been made with different methods of forcing out the contained oil with water, air, or gas pressure—either directly from the surface or through the proposed method of sinking shafts and driving galleries underground. Some of the authorities on these methods believe that a second crop from known sands can be obtained by these means as great as that already recovered and available in the proved reserves. Such a result, if attained, would add a total of over 13 billion barrels to our supply from known fields. While no positive assurance can be given from the results so far attained, yet it is the impression that developments have proceeded so far as to give strong belief in considerable further recovery from the known sands over and above the estimates which have been made as to the supplies available by present methods.

Better Utilization of Crude Oil.

The most essential products from our crude oil are lubricating oil, gasoline and other oils for internal combustion engines. The other uses for oil could be dispensed with, without an industrial revolution as other fuels and substitutes could be applied without prohibitive differentials in economic costs. At the present time, about one-half of our crude oil porduction is burned either as crude oil or as fuel oil to generate steam and heat—the remainder is used as kerosene, gasoline, lubricating oil, etc.

Up until 13 years ago, the amount of gasoline which could be recovered was limited to the natural fraction of gasoline in the crude product, but the discovery of the cracking processes, by which the heavier oils can be broken down into gasoline, has opened an entirely new vision as to the gasoline supply. At the present moment, probably 64 per cent of our gasoline comes from straight distillation of crude oil, 31 per cent comes from cracking and 5 per cent from natural gas gasoline. It seems theoretically possible to crack 80 per cent of the oil now going into fuel and heat purposes—if the gasoline were required.

The division of crude as between the different kinds of oil products is purely an economic question. There is already a tendency to displace heating oils by coal, and at a sufficiently higher demand for gasoline the fuel oils can be largely converted into supplies for internal combustion engines. The discoveries in methods of cracking oil are of fundamental importance in considering the future of our essential oil supplies. And this conversion in itself comprises a potential of assured gasoline supplies.

It may be contended that a control of production by which supplies would be reduced would so increase the price as to force the production of gasoline instead of so large fraction of use as fuel oils. This program, however

CONSERVATION BOARD'S PRELIMINARY REPORT

raises impossible difficulties in artificially increased prices to the consumer, inability to regulate the flow accurately to the demand, and the ultimate necessity to regulate profits in order to protect the consumer.

Better Control of Production.

There are subsidiary phases of overproduction which deserve attention, as they lead to economic waste. At the initial opening of new fields the gas pressure is strong and the flush flow of wells is very large, rapidly diminishing to more settled production, and the opening of new fields is in most instances followed by a fever of drilling. Due too often to divided ownership in small areas, the drainage of which is threatened by adjacent wells, a rush of drilling leads to enormous flush flows which temporarily glut the market and force much oil into fuel consumption, and, through over release of the gas, diminish the amount of oil that can be ultimately obtained by flow and pumping. This question is discussed later on more fully.

Better Mechanical Devices in the Use of Oil Products.

It is certain that many of the gasoline engines are inadequately designed to secure the most economic use of gasoline. It is estimated that 25 per cent of the gasoline could be saved and the same mileage of movement provided if there were more adequate designs of carburetors and engines. These factors in engine construction have been steadily improving over many years, and, no doubt, will continue to improve. Their improvement will be expedited if there should be a tendency of gasoline prices to rise.

Foreign Sources of Oil.

While the production of oil upon our own territory is obviously of first importance, yet in failure of adequate supplies the imports of oil are of vast moment. The present imports from Latin American fields amount to about 62,000,000 barrels annually of crude oil, against which we export about 94,000,000 barrels of products. The fields of Mexico and South America are of large yield and much promising geologic oil structure is as yet undrilled. That our companies should vigorously acquire and explore such fields is of first importance, not only as a source of future supply, but supply under control of our own citizens. Our experience with the exploitation of our consumers by foreign controlled sources of rubber, nitrate, potash and other raw materials should be sufficient warning as to what we may expect if we shall become dependent upon foreign nations for our oil supplies. Moreover, an increased number of oil sources tends to stabilize price and minimize the effect of fluctuating production.

Supplies from Oil Shale and Coal Distillation.

The by-product distillation of coal for coke and gas purposes produces a certain amount of oil. The most adaptable coals produce about 4½ gallons of light oils and 15 gallons of tar per ton. This supply for 1925 amounted to about 146,000,000 gallons of light oils and 528,000,000 gallons of tar. The tendency in industry is strongly to increase the distillation of coal and the recovery of by-products; the whole of the coals adapted for this purpose, however, would not furnish an appreciable substitution of our liquid-oil supplies. They obviously could not be distilled for oil production alone, but must depend upon the market for the major products—that is, coke and gas.

The oil shale and oil sand deposits of the country are of more promise in the future outlook. Very large areas of such shales exist, many of them containing as much as a barrel of oil per ton of shale. Their utilization is solely a question of price. There can be no doubt that these shales will some day be brought into production. They form an almost unlimited reserve and may, therefore, be taken as the final protection of our people in the matter of essential supply.

Action to Be Taken in Reinforcement of Supply.

The major part of the measures that must be taken to protect our future supplies must rest upon the normal commercial initiative of private enterprise. The field for governmental action is considerable, but to formulate the broader by-laws of the industry in the sense of conservation and to concentrate thought upon them, is the major part of the Board's task in cooperation with the industry.

The directions in which industry can contribute to assured future suplies are:

(1) Continued exploration for extension of known sands and deeper sands in known fields.

(2) Continued exploration for new fields.

(3) Systematic research and experiment upon methods of securing a larger proportion of the oil from the sands.

(4) Systematic research and experiment in new methods and cheapened costs in refining and cracking oils and waste elimination.

(5) Cooperative methods in sane development of new fields to prevent wasteful flush flow and overproduction.

(6) Research and application by engine builders of more economical use of petroleum products.

(7) Expansion of American holdings in foreign oil fields.

The contributions which the government can make are considerable:

(1) Continued and expanded research by the Geological Survey in geologic studies of the accumulation of oil and structure of oil-bearing areas; by the Bureau of Mines into methods of producing and refining—including oil shales; and by the Bureau of Standards into questions of constitution and utilization of oil products.

(2) The more intelligent handling of government-controlled oil sources on public and Indian lands.

Of the fundamental conservation measures above mentioned, that of cooperative methods in development of new fields to prevent temporary gluts, merits more exhaustive discussion, as it is a promising field for important action by both industry and the government.

Control of Flush Flows.

The common right of adjoining owners to reduce to possession respective oil and gas in the pools tapped by wells drilled on their lands should involve some recognition of correlated obligations, so that in the drawing of oil and gas by one owner from the common reservoir the producer should be required to recognize the right of the neighbor to so much of the oil as is withdrawn from underneath his property, less a reasonable allowance for the cost of production, the hazard of the undertaking and a reasonable profit on the undertaking. The right of the State under its police powers to prevent the action of one owner from working a deprivation of the rights of other owners of a common property and to prevent waste or destruction of the common property by one of the owners, seems reasonably clear.

The right of the State to prevent the waste of natural resources is rendered more important in this matter by the newly discovered or at least more widely recognized facts regarding the role of gas in the oil sands. Gas is more than a commodity of smaller commercial value associated with oil; it is the efficient agent provided by nature for bringing the oil within reach of man. Dissolved in the oil, the gas makes the oil flow more freely to the well and there forces it upward and the longer the gas is retained in solution, the larger is the recovery of oil. Waste of gas is therefore a double waste, and the impairment of the gas pressure in an oil sand by one owner may prevent his neighbors from recovering any of the oil beneath their land and himself from securing more than a small part of the oil underlying his own land.

State Control of Gas.

The authority of the State to prevent the waste of natural gas has already been declared and it logically applies as well to the dissipation of gas pressure without which great quantities of oil would be entirely wasted. Geologic science and engineering practice as well as economic considerations of waste afford a broad foundation on which to base State legislation.

If the several oil-producing States should protect property rights in oil produced from a common underground supply, it undoubtedly would have some effect in the direction of stabilizing production, of retarding development whenever economic demand does not warrant, and of making the business of oil production more economical. Such legislation, although not directly regulating production, would in part accomplish this by freeing owners and operators from the present pressure of a competitive struggle.

The formulation and adoption of remedial measures permitting a better correlation of underground property rights is all the more urgent in view of the present intense activ-

CONSERVATION BOARD'S PRELIMINARY REPORT

ity of the engineers in perfecting better methods of oil recovery. In order to accomplish something in relieving the pressure of competition before it is too late, it is suggested that the lawyers familiar with the business of the oil operators take the lead in developing the needed line of action in accord with the discoveries of science and changes in engineering practice.

Government's Authority Limited.

The power of the federal government to regulate oil production is doubtless limited to its own oil lands, unless the national defense is imperiled by waste or exhaustion of the oil supply. Here the policy of reservation to meet future federal requirements has already been established and is being perfected as prompted by increased appreciation of the need and as guided by better understanding of the means to that end. It has been suggested to the Board, however, that the government's jurisdiction as a sovereign owner of the oil under its land may justify and authorize federal legislation to prohibit adjoining owners from appropriating the oil by means of wells drilled on their property. This suggestion involves many interesting implications concerning State nnd federal power, but State legislation for the protection of all owners would be preferable and the federal authority, if any, should be invoked only when it is clear that the State is unwilling or fails to act, or when naval reserves are threatened with depletion.

Another avenue of relief is the restriction of development of operation through voluntary agreement of owners. This suggestion is not novel for it has to a limited extent been tested in actual practice and can be discussed in the light of experience. Agreement between neighboring property owners as to the handling of their common property and the protecion of their mutual rights is more and more generally recognized as making for economy in development and efficiency in extraction as compared with competitive drilling. Indeed, operators of experience have expressed to the Board the opinion that duplication in drilling and the consequent unnecessary reduction of gas pressure constitute the cause of all waste worth mentioning in the production of oil. The danger that much of the remaining oil will be brought to the surface before either courts or lawmakers can be exepected to remedy the situation has also prompted the expression of opinion to the Board that voluntary cooperation offers the only practical hope.

Legality of Cooperative Agreements.

The question of the legality of cooperative agreements has been frequently raised in the recent discussion of remedial measures. The uncertainty as to whether the economic betterment through substituting cooperation for competition runs counter to federal and State laws has served as an actual or imagined or pretended barrier to cooperative action and the removal of that legal inhibition is asked, although the suggestion comes from the industry that "to protect the public, approval of such agreements by some commission or board should be required." This doubt should be removed by appropriate legislation.

The voluntary cooperation proposed would need to include the landowners and operators in a single field or pool, which is a relatively small unit of production, so that the possibility of monopolistic control need not be feared. Indeed, cooperative regulation of either the development or the operation of a single pool could control only a small percentage of the country's production. The largest flush pool in recent years—Santa Fe Springs in California—contributed 11 per cent to the output in 1923, and no pool contributed more than eight per cent to the output of either 1924 or 1925. Indeed, the three exceptional pools last year —Smackover, Arkansas; Long Beach, California; and Tonkawa, Oklahoma—together accounted for only 16 per cent of the country's production. Even the flood of oil from the Cushing pool at the time of its maximum yield in 1914 and 1915 is to be credited with only 17 per cent of the country's production in those years when the total yield was only a third of that of 1925.

In one instance of cooperative control by the Salt Creek Conservation Committtee, the prorating of production in 1922 and 1923 reduced the output to perhaps one-third of the productive capacity of the 600 to 700 wells then producing. The effect of the committee's restrictions on production was a matter of only eight or nine per cent of the country's production of that period.

Governmental Scrutiny.

The question of the country-wide influence of such cooperative action on either supply or price would, moreover, under any legalized procedure, be always subject to "appropriate and adequate governmental scrutiny," quoting from counsel of the American Petroleum Institute, "to the end that these owners might not be stimulated to undue haste and a wasteful competition in the development of their properties and trade, but might have a greater liberty to consult the economic conditions of the industry from time to time."

The test of experience can be applied to the voluntary agreement plan of pool development and operation, for instance can be cited of one-company control of a pool, of coordinated development by a few owners, of community action, and of prorating agreement with later group control.

For a decade, the Cabin Creek field in West Virginia has been an outstanding example of an economical drilling program having a definite purpose of high recovery at low cost and at a rate adjusted to demand. The field is owned by a single company and has been operated as a unit with the definite purpose of only meeting the requirements of the operating company's refinery and that for the longest possible time with crude oil produced at the least possible expense. This two-fold aim of maximum recovery and minimum cost was sought through planning the economic spacing of wells and through conserving the gas pressure in the oil-bearing sand. Freedom from the pressure of competition has made possible at Cabin Creek a remarkable controlled production curve for the field, bearing little resemblance to the decline curves of other fields. Last year, for example, the output from Cabin Creek was the same as eight years before.

Fields Under One Control.

Another example of an oil pool favored with non-competitive control is Rainbow Bend in Kansas, where the three large companies concerned owned only undivided interests in the surface over the pool. This pool was discovered at a time of over-production, but in spite of transportation facilities permitting rapid development, wells were put down cautiously and without haste, dry holes reduced to a minimum, gas was not permitted to escape and reduce pressure, storage requirement was kept down—all factors making for economy. Such a pool, though small, acts as a desirable reserve slowly drawn upon, since it did not reach its peak of production until 19½ months, as compared with 1½ months for the larger and more spectacular Wortham, Texas, field, where the control was divided into 91 competitive blocks. It may not be without significance that the price of crude began to rise just after the crest of the Wortham flood of oil passed, and Rainbow Bend slowly attained its maximum output while the price was at its best.

The Reagan County, Texas, field, a somewhat more productive pool, was controlled by two companies which cooperated rather than competed, with resulting conservative rates of development, spacing of wells, and holding back of production during times of greatest overproduction. The decline in the Reagan County pool has not yet begun 2½ years after its discovery so that it serves in a way as a reserve, to be drawn on when its output is needed by the country and the price compensates the owners; under such conditions supply is responsive to control.

Santa Fe Springs.

As illustrating the lack of cooperative action, the Santa Fe Springs field of California has been brought to the attention of this Board. In this small but highly productive field, 45 operating companies completed, drilling more wells than necessary, letting loose an unneeded flood of oil on the market, with resultant disaster to the price structure, and creating conditions of increased operating costs. The total losses attributed to this competitive struggle in a single field are estimated as in excess of $200,000,000, but even greater perhaps than this economic waste involving a loss to the industry, is the loss to the country involved in the dissipation of gas pressure, leaving in the upper sands oil

(Continued on page 43.)

Turner Valley Most Active Spot of Canadian Oil Search

Core drill now being used to uncover hidden structures of Alberta

By Staff Special

SEARCH for oil in Canada is centered largely in the Province of Alberta, where gas production and geological features are favorable to the accumulation of petroleum. The district in the spotlight is Turner Valley, 35 miles southwest of Calgary. This is a gas field, where deep wells are giving up raw gasoline through natural pressure and condensation.

This product is known as "crude naphtha" in Canada but it is similar to the liquid taken off "wet gas" by these methods in fields of the United States.

Turner Valley is one of the gas fields supplying the city of Calgary with fuel. Its first wells were completed in the Ellis and the Kootenay sands around 2000 feet. The output was small, being only a few cubic feet with a little oil. This, however, caused much excitement between 1914 and 1918. But the drilling that followed produced nothing of especial commercial value and the interest subsided.

Gasoline Well

Renewed interest in Turner Valley came in October, 1924, with the completion of Royalite No. 4, a deep well, drilled into the Madison limestone. It came in for around 15,000,000 cubic feet of wet gas. Pressure was so great that efforts to close it failed. At first it was equipped with a separator, for extracting the natural gasoline so the gas could be wasted, since there was at that time no market for it.

In the winter of 1925 a gas line was completed eastward to the main trunk line, which carries gas from the Bow Island field to Calgary. The well continues to produce around 15,000,000 cubic feet of gas daily, while 400 barrels of raw natural gasoline is removed by natural pressure and condensation in the separators.

Since then a two-inch line has been laid into Calgary, by which this gasoline is transported to the refinery of the Imperial Oil Company, Ltd. Gas from some of the shallow wells is put through a regular gasoline plant and transported in the same line.

Second Well

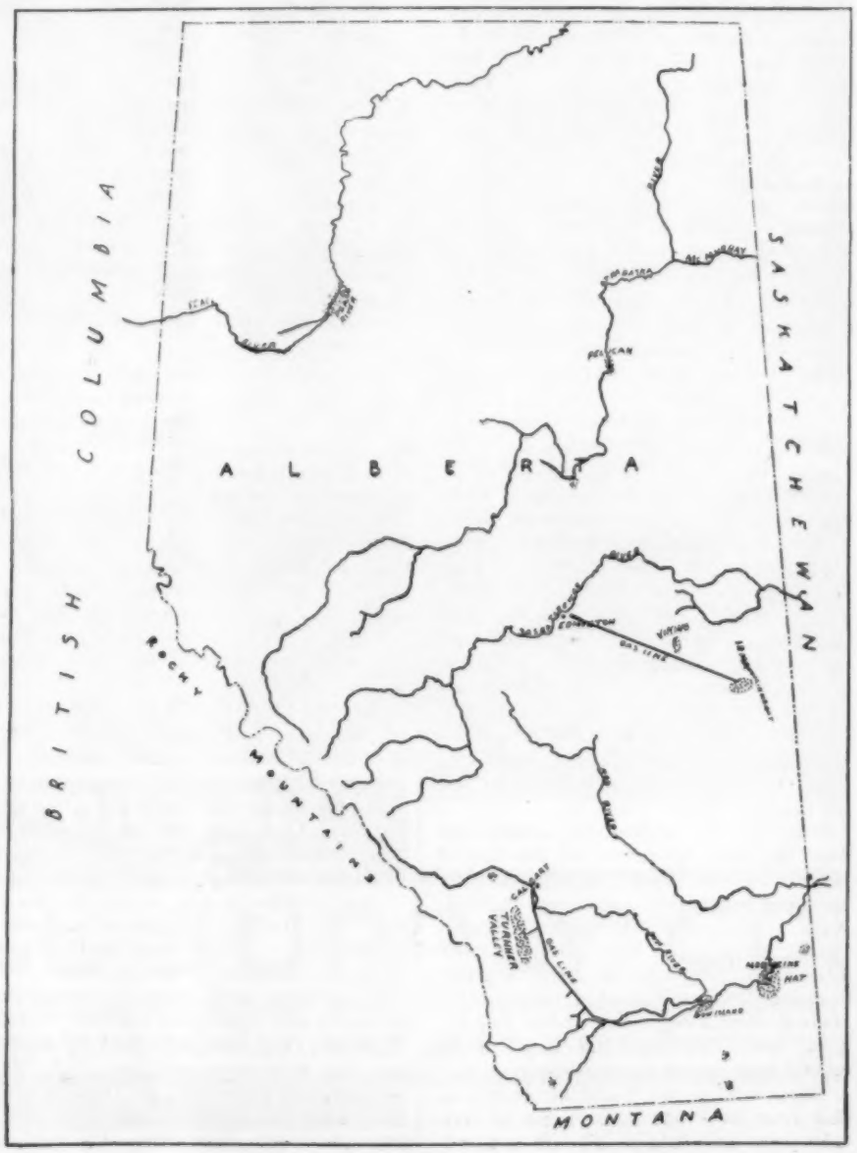
The Royalite Oil Company, owner of this well, is a subsidiary of the Imperial Oil Company, which is the Canadian wing of the Standard Oil Company (New Jersey). The refinery at Calgary operates on crude oil from the Kevin Sunburst district in Montana, being transported by tank cars. The raw gasoline from Turner Valley is used for blending with the refinery product.

In August of this year the McLeod Oil Company drilled into the Madison limestone in well No. 2 LSD 16, section 1-20-3w5. At 3772 feet the tools were frozen and the hole began making gas, from which 80 barrels of raw natural gasoline is taken by condensation in separators. This gasoline is being sent to the Imperial plant through the line laid for that purpose.

The action of this well, as yet not complete, has served to heighten interest and intensify effort in what was already the most active area of Canada. There are perhaps 20 wells drilling on the structure.

Recently this field as well as other prospective oil areas of Canada were visited by E. G. Woodruff, consulting geologist of Tulsa. He has made several geological inspections of Canadian territory in the interest of oil concerns of the United States. The following general information on Canadian oil development has been furnished by him.

Turner Valley is in the Foothills Belt of the Canadian Rockies. It is a closely folded and highly faulted anti-



cline. At some places on the sides the strata dip as much as 45 degrees. There are several faults, which seem to have a most direct influence on the accumulation of the gas. Not all of these faults can be noted from the surface.

While the structure is several miles long, that part considered as likely to serve as an oil trap is only three miles long and a few hundred yards wide.

Geological Features

Geological conditions in Western Canada are similar to those of the northwest part of the United States. The Rocky Mountains uplift occupies the whole of Western Canada, having a north-south trend as in the United States. There is a central part where there are only Igneous rocks (granite) and very old strata. East of the granite ranges, there is a basin similar to that east of the Rockies in the United States.

Sedimentary formations of Wyoming and Montana are correlated with those of the Canadian provinces to the north. Confusion in identifying these is due to the fact that the Geological Surveys of Canada do not give the names used by surveys of the United Staes, however, the formations are identical. Oil bearing formations of Wyoming and Montana are but slightly different from these same formations in Canada and these differences are so slight that they would not prevent their bearing oil in Canada.

Structures found in Alberta are of the type known as oil bearing in other countries. There are anticlines, domes, terraces and faulted structures. Only those in the foothill region are easily found, because most of the remainder of the territory is covered by glacial debris. There are boulders, sand beds and clay deposits scattered in irregular heaps where the immense glaciers dropped them when the ice sheet melted.

Difficulties Encountered

Glacial action is of two types. One resulted from the continental ice sheet, which moved southward from the Arctic Circle, covering all of Canada and part of the United States. The other is that of small glaciers, extending as ice tongues from the mountain gorges into the plains. When these melted, they left a blanket of mud, sand and boulders, which concealed the stratified formations below.

Only in the mountains, along the foothills and in some of the major stream sources has this blanket been removed by erosion, exposing the stratified formations. At these favored places structures have been found. Elsewhere they can be only inferred. Since only closely folded and greatly faulted structures occur within this region, only this type has been determined and tested in Alberta.

Elsewhere in the world structures of this type have not been found to contain great amounts of oil. It is therefore not surprising that no great oil fields have been uncovered in Alberta. The great oil fields of America and Europe have been found in the gently folded structures.

Using Core Drill

In Alberta these gently folded structures will be found at considerable distance from the mountain area. And since the region removed from the mountain area is covered by the glacial deposit, the search for structures of this type is difficult.

Already the core drill has been taken into Alberta and is being used to search for hidden structures of the gently folded type. Success of the core drill in Oklahoma and Kansas is evidence of its value for searching for hidden structures.

Encouragement in the seach for oil in Alberta comes from the fact that the gas uncovered into the limited development already accomplished is a petroleum gas. The Madison limestone wells of Turner Valley are the best examples of the fact that the gas is derived from oil, reservoired elsewhere in the province of Alberta.

History

Prospecting for oil and gas began in Alberta in 1902. Preliminary work was done at Waterton Lakes but this was soon abandoned and no substantial effort to find oil followed until 1912. The Dingman well, now known as Royalite No. 1, was completed 35 miles southeast of Calgary in 1914. But the war halted further search. Then for 10 years only two or three concerns carried on any sort of search in the province.

The more important gas fields and developments are shown on the accompanying map. Other scenes of drilling with some gas production will be mentioned herein but no reference is made to them on the map.

The Peace River field of Northern Alberta has had several good gas wells. But its distance from a possible market has left the area without either gas production or development at present.

Another field of this type is the pelican field, which has four wells, none deeper than 1000 feet, with average output of 3,000,000 cubic feet daily. But there is neither local market nor outlet for the product. It is considered as an excellent gas reserve, with oil possibilities not determined. There is no development at present. This field is on the Athabaska river, north of Edmonton.

The Athabasca field is on the same river and north of Edmonton but nearer the city. It has some shallow gas wells but no activity at this time.

The Viking field, east of Edmonton, is one of the important reserves of the province. Gas comes from two sands, one 2100 feet deep, and the other 2300 feet deep. There are 12 wells, with daily flow of from 4,000,000 to 10,000,000 cubic feet. Gas from this field is piped to Edmonton, the capital of the province. Commercially it is one of the important fields of the province because of its size and total reserves.

The Irma-Wainright field is farther east of Edmonton than Viking and a gas line extends to this field from the capitol. The field was first determined by the finding of gas in wells at Irma. Now the development has continued along the Battle river to Wainright, 18 miles. First gas came from a formation 1900 feet deep, while another productive sand has been found in the lower Cretaceous at 2400 feet. Some heavy oil has been found in this sand. Wells average as high as 5,000,000 cubic feet daily.

Still Drilling

The oil possibilities of this field are considered good.

Wetaskiwin, not shown on the map, is about 50 miles south of Edmonton. Three wells are producing gas, which is used locally for fuel in generating electricity. The field is on a railroad. It holds little promise for a substantial amount of gas.

At Caster, south of Alliance, there were once some shallow gas wells. All efforts have been abandoned.

The Jumpingpond field is 10 miles west and a little south of Calgary. A well drilled for oil some years ago, found a small amount of gas. This well went to 2700 feet. Drilling is still underway on the structure, which is a closely folded and faulted anticline within the foothills belt. The structure is similar to that at Turner Valley to the south.

One of the oldest gas fields of the province is Medicine Hat. Since 1900 that city has been supplied with natural gas from shallow wells. There are two gas sands, one found between 700 and 800 feet, the other between 1000 and 1200 feet. Some 40 wells are producing, most of them from the deeper sand.

Bow Island is one of the important gas deposits of Alberta. It is west and slightly south of Medicine Hat. Gas from this field is piped to Calgary and other cities within the region for domestic fuel. This line passes near Turner Valley, where the line from that field ties into the Bow Island trunk line.

The Bow Island field was opened in 1907 by the Canadian Pacific Railway Company. It is operated now by the Canada Western Natural Gas Light, Heat & Power Company. The gas comes from sands from 1900 to 2500 feet deep. The structure is a broad fold, said to cover 20 square miles. Wells with daily output as high as 20,000,000 cubic feet have been completed. This is one of the districts to be tested for oil by deep drilling.

South of Bow Island are Many Island Lakes and the United well. Both of these have been tested by drilling and some gas found but are not now active, since there is no market for the gas.

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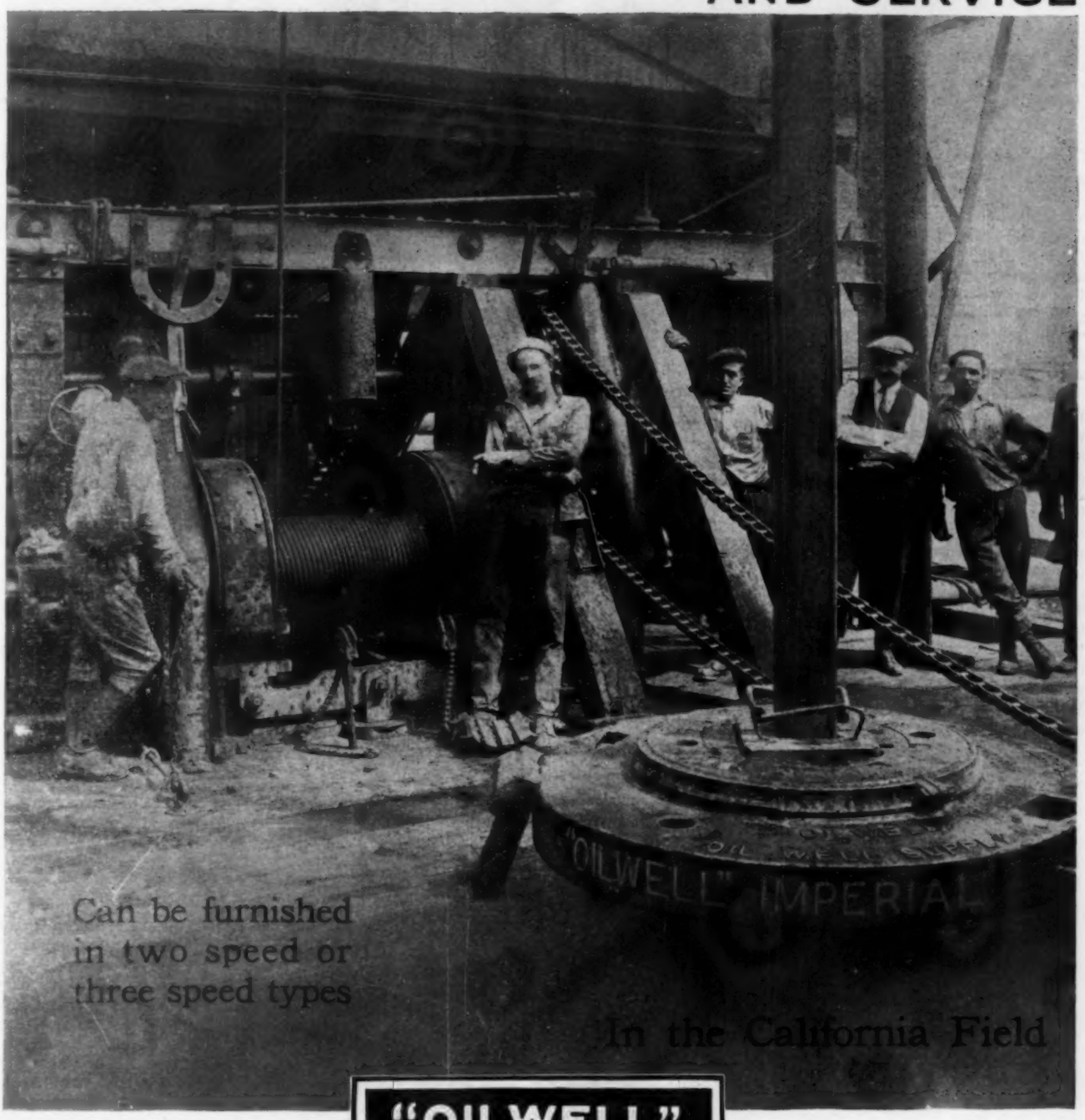

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(REGISTERED)

Say you saw it in The OIL WEEKLY

Huntington Beach's Town-Lot Drilling Boom Promises Disappointment

I roducers have declined rapidly and many wells have passed production depth with no show

By Wm. V. Gross
Staff Representative

Los Angeles, Cal.—Huntington Beach's sensational townsite area is a sad disappointment to a host of Basin operators, if revelations of the few pioneer wells completed and those already pass the accepted depth of the producing horizon are to be taken as the criterion. Behavior of the discovery well of the Superior sand, together with that of the two completions which followed it, has cast a pall over drilling activities in the newly opened area.

The Superior Oil Company's Jones No. 1, discovery well, has fallen in a few weeks from an initial of 350 barrels to a daily production of about 180 barrels. Julian Petroleum Corporation's Lambert No. 1, the second completion, has dropped in two weeks from a flush yield of 550 barrels to 190 barrels per day. This was the banner well of the field. E. J. Miley Oil Company's Pacific Electric, which came in barefooted for an initial yield of 450 barrels, today is making less than 100 barrels. Of the three, E. J. Miley's perhaps can be improved as its decline in output is obviously due to remediable sand troubles. The other two have merely "lost their kick."

Pass Production Depth

Another plausible ground for apprehension on the part of Huntington Beach developers is the failure of wells located near the producers to find any traces of the Superior sand. This condition substantially cuts down the area of what hitherto was considered potential productive property in the townsite. E. J. Miley's Pacific Electric No. 2, for instance, has passed 3340 feet without finding any indications of the Superior sand or any other productive horizon. The Superior sand bottom, as in the discovery well, is at 3063 feet. Miley's Pacific Electric No. 2 is only 800 feet southeast of his No. 1. In addition to the above well, wells No. 4 and 5 of George F. Getty both have passed the 3100 foot level and have logged no traces of the Superior sand. The same is true, so far as is known, of the Wilshire Oil Company's Huntington No. 1, deep test which now is coring below 4100 feet.

The handwriting on the wall at Huntington Beach points to a field of economic value even lower than that of Los Cerritos if something radically different from the present trend of development does not come to light. The above examples of wells already past the hitherto accepted production depth do not constitute the entire basis for the belief that Huntington Beach's fame will be of short duration. At this writing, there are a dozen operations facing the same predicament. With this evidence in hand, the operators, like those of bankrupt Los Cerritos, are loath to be reluctant about leaving Huntington Beach and concentrating their activities elsewhere. Los Cerritos' percentage of successful operators, those who profited from exploitation, has been rated at 12. From present indications, it seems there will be two successful operators at Huntington Beach, in the townsite. The fate of the rest is doubtful.

74 Active Operations

A survey of field operations taken September 3 showed 74 active drilling wells in the townsite and the Barley Patch. Wells actively drilling in the townsite proper number less than 50. Of the total, in addition to a number of smaller independents, the California Petroleum Corporation is drilling five; Julian Petroleum Corporation is drilling two and has rigs for two others; the Petroleum Securities Company is drilling seven; the Superior Oil Company is drilling 14; the Standard Oil Company of California, nine; the United Oil Company, two rigs; the United States Royalties Company, two, and Hogan and Lytle are drilling one.

How many of these will carry on is not known, though it is reasonable to expect a number of them will be abandoned, in the event something is not found deeper in the field. To a great extent, their actions depend on the outcome of these wells which are due for completion, successfully or unsuccessfully, within the next 10 days. Among those operations being closely watched are the Superior Oil Company's Babbitt No. 1 which is reaming to set casing at 2993 feet; the same company's Fee No. 1, testing casing at 3033 feet; the Wilshire Oil Company's Huntington Beach No. 1, coring below 4075 feet and the Wilshire's Huntington Beach No. 2, which has cemented casing at 3020 feet .

Signal Hill Faces Crisis

For the first time in two months, the downward trend of production at Los Cerritos and Long Beach has been checked, but the condition is considered temporary insofar as the former is concerned. The two months just passed have seen a 7000 barrel decline in the production of Long Beach, giving it a daily yield today of about 86,000 barrels, according to major company computations. It has remained steady at this figure for two weeks. The same is true of the Los Cerritos division of Signal Hill. July and August saw the daily production of Los Cerritos drop from 18,000 to about 10,500 barrels, at which figure it has remained for two weeks ending September 4. Long Beach production is coming from 542 wells, while that of Los Cerritos is coming from 149. Of the latter number, about 73 are re-conditioned and deepened producers. The total producing wells in Los Cerritos today represent roughly 75 per cent of the total successful completions.

While the production of the two areas has remained constant for two weeks, there is no indication it will continue to do so. Based on the behavior of other Los Angeles Basin fields, the natural trend will be downward. There is nothing new in the way of productive horizon to give rise to renewed drilling activity in Los Cerritos and the amount of general reconditioning being carried on in both places is not such that hopes for a fixed rate of production can be entertained, ditions of independents relying upon Los especially at Los Cerritos.

With few exceptions, the financial con-Cerritos oil for income is bad. This is borne out by their reaction lately to an appeal for monetary aid made by an organization which purposes to install a drainage system in the field. Those who responded to the appeal represent only a small portion of the total number of operators. Their failure to respond is generally conceded to be because of dire financial conditions and not because of any particular antagonism to the proposed drainage system.

Remarkable Well at Dominguez

Dominguez field is receiving a great deal of attention following the completion this week of the Shell Company's Reyes No. 33, which had an initial of 800 barrels of 29 gravity oil. Completion depth of the well was 4048 feet, a few feet deeper than former completions on the Reyes property of the Shell. That the well in old Dominguez has considerable life is evidenced by a casinghead pressure reading of 460 pounds and a tubing pressure of 200 pounds. These have not given any signs of weakening immediately.

The same company's Reyes No. 32, another completion of the week, did not make such a good showing. At 3969 feet the well failed on a test and it will have to be deepened.

Union Oil is drilling three wells at Dominguez which should be ready for production tests soon. These are Carson No. 3, standing cemented at 4647 feet; Callender No. 5, standing re-cemented at 4876 feet, and Hellman No. 3, standing cemented at 4270 feet.

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FRANKLIN VALVELESS ENGINES

THEY BEAT STEAM AT EVERY TURN

Welding in a drip tank on the Cambridge-Petrolia gas line laid by the Cities Service Company. Note the rock formation encountered in ditching.

Every Step of Construction of Cities Service Gas Line Had Rigid Inspection

Cambridge-Petrolia welded line facilitates delivery of gas to Kansas City, Mo.

By Roye Munsell
Staff Representative

THE new 12-inch Cambridge-Petrolia gas line laid by the Cities Service Company is the largest pipe line project undertaken by the company in five years. The line, 59.8 miles long and entailing an expenditure of a million dollars, extends from the company's Cambridge compressor station, in Cowley County, Kansas, to the Altoona 16-inch line, in Wilson County, Kansas.

The line gives a greater outlet to Dilworth-Blackwell gas, and decreases the time of delivery to Kansas City by two hours. This expedited delivery to Kansas City will assist very materially in meeting the heavy peak load demands at that point.

The construction work on the line was divided into two portions, an east portion about 35 miles in length and a west portion about 25 miles in length. The work was done by contract, the contract for the eastern portion of the project being awarded to the Sheehan Pipeline Construction Company of Tulsa, and the contract for the western section to the Connor & Son Construction Company of Kansas City.

The terms of the contract called for the completion of the line in 60 days, but unfortunate obstacles delayed construction until the actual time was well over 100 days. The nature of the weather was largely responsible for the delay. Sometimes it was so hot that the men were prostrated and so dry that each shovel full of dirt made a little dust storm. Since part of the work was done during the winter months it was so cold sometimes that crude stoves had to be put up in order that the men could warm their hands and feet occasionally and thereby prevent severe frost bite. At other times, it rained, and what had been clean cut sections of trenches became mud and water filled gullies.

Ditching

Practically the same method of ditching was used by both contractors. Their excavating crews were divided into four groups, each group having a certain kind of work to do.

The first crew traversed the entire length of the line with ditching machines, digging as deep as possible. Because of the nature of the ground, the machines could only scratch the surface in some places. In other places, considerable dirt was removed with the machines. In any event the position of the line was clearly marked for the following crews.

The second crews were the pick and shovel gangs. They followed directly behind the machine and removed all but the solid rock formations. These crews were the largest in number employed on the project and consisted very largely of Mexicans.

Following the pick rock gangs, came the blasting crews with air guns and dynamite. Portable gasoline engine-driven compressors supplied the compressed air for the drills, which were used to drill shot holes in the rock.

As a rule, small charges of dynamite about two feet apart were found to be more effective than larger shots with greater spacing. The shots were set off in groups of about 50 or more.

After shooting the rock, the blasting crews moved on and made way for the clean-out crews. These gangs cleaned out the ditch, graded it, and made it ready for the pipe layers.

Inspection

From start to finish, careful inspection played a large part in the Cities Service Company gas line project. A company inspector accompanied the ditching crews at all times in order to insure a trench of the proper width, depth and grade.

After the ditch had been completed, inspected and passed by the inspectors, everything was ready for the pipe layers. The 12-inch pipe used in the line had beveled ends and weighed 43 pounds per foot. It was tested at the mills for a working pressure of 600 pounds per square inch, which is nearly three times the maximum pressure that will be used in service.

The pipe was shipped directly from the mills to the job and so distributed that a minimum haul was required. A sub-contract was let to unload, haul and string the pipe on the right of way. It might be mentioned that in many places the ground was so rocky that straw filled sacks and old auto tires had to be laid down in order to cushion the pipe so that it would not be damaged when rolled off the trucks.

For the west 25 miles and for five miles of the east portion of the line, 20-foot lengths of pipe were used. For the remaining 30 miles, 40-foot lengths were used. Although the 12-inch pipe in 40-foot lengths present many difficulties due to weight and cumbersomness, it has one outstanding advantage that probably offsets all disadvantages. It cuts down the number of joints by half, which means half as may weak places and half as many spots to spring leaks.

Welding Crews

In the welding operations, the welders were divided into crews, and the crews in groups. The head welding crews were

organized into groups of four welders, there being four such groups in each head welding gang.

Each group was provided with a cart which carried four cylinders of oxygen and a manifold with four taps for acetylene. Individual regulators governed the oxygen pressure.

The method of distributing the acetylene gas to the welders is worthy of special note. Several large 100 pound generators, mounted on farm wagons, two generators to the wagon, were connected to a manifold composed of twenty, 200-foot section of inch and one-quarter pipe. Each section was provided with stop cocks and side connections so that once filled with gas they remained so until the line was completed.

The 4000 foot manifold was strung ahead of the welding crews and connected up. Fifty foot sections of hose were used to connect the gas line to the small manifolds on the oxygen carts. As soon as the last section was passed by the welders, it was disconnected and moved to the other end and reconnected. In this way is was possible to weld 8000 feet without moving the generators. In addition to this advantage, the gas was delivered to the welders at uniform pressure, and was cool and dry.

The generators were moved at night after the welders had finished for the day, therefore, the welders lost no time while the position of the generators were being changed.

The middle welding operation was performed by a crew of four welders each working from a generator mounted on a farm wagon. These crews made sections as long as the contour of the country would permit, or as long as could be handled by the tie-in crews.

The tie-in welding operation was performed at the same time that the pipe was placed in the trench and the bends made. In making a tie-in weld, two welders worked together, starting at the bottom of the pipe and welding up, timing themselves so that they would finish simultaneously.

Except for the work of the head welding crew, the welding of the 40-foot pipe did not differ from that of the 20-foot sections. In rough country, the line up work was harder, of course, because more blocking was required.

Drip tanks were welded into the line at such points as was thought necessary. These drips were made up of a 20-foot section of 12 inch pipe with plug welded ends, and connected to the line pipe with risers of eight inch pipe 16 inches long. A three inch blow off riser was provided to remove any water or gasoline that might collect in the drip barrel.

Drilling shot holes preparatory to shooting on the Cambridge-Petrolia gas line of the Cities Service Company. Art Jones, foreman, is standing beside the driller.

Crossing Reinforcements

The welds in crossing small creeks were reinforced by welding four one-half inch by two-inch by eight-inch plates across the weld and equally spaced around the pipe. When large creeks and rivers were crossed, this reinforcement was supplemented by cast iron river clamps bolted on the pipe at the welded joints.

Every piece of welding was given a rigid inspection by a company inspector. When instances of faulty materials or workmanship were found the matter was rectified at once. Not a single joint was covered until it was inspected and passed.

The line was painted with Parolite, a two coat painting preparation developed for pipe lines. The first, or primer coat, is very thin and is applied with three knot swab brushes. The second coat is very thick and is put on hot with a painting cloth.

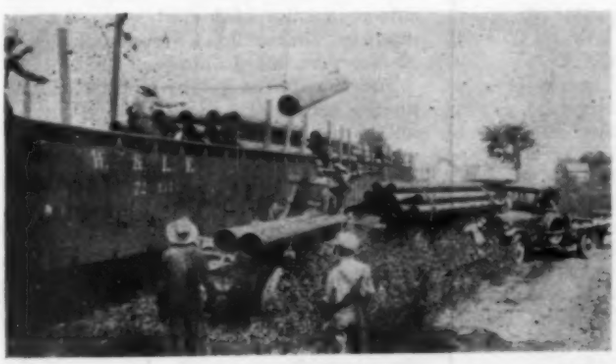
A special heater was made by the Horrigan Boiler Works of Tulsa, Oklahoma, to heat the second coating. Briefly, it consists of a four barrel paint tank surmounting a fire chamber designed to burn wood or distillate. The draw off lines are made of two and one-half inch pipe and pass through the fire chamber. The entire outfit is mounted on steel wheels and provided with a tongue so that it may be transported with either a team or tractor.

The paint was heated to a temperature of 450 degrees F. before being applied. It was handled in garden sprinklers with the spray bulb removed. One man standing on the pipe and walking backwards poured the paint on the pipe, while two men operated the painting cloth. The layer of paint put on the pipe was about one-sixteenth inch thick.

Here again a rigid inspection was made. Before the primer was put on the pipe was inspected to make sure that it was clean and dry, and that each weld has been scraped free of scale. While the Parolite was being put on, the paint inspector was careful to assure himself that it was at the right temperature—not too hot nor too cold. After the paint was on, a final inspection was made before the pipe was covered in order to detect any places that had been missed.

The inspectors were the most cordially hated men on the job, and probably it was for precisely the same characteristic of human nature that they were necessary.

W. M. Coats, independent operator of El Dorado, Ark., accompanied by his wife, has returned home after motoring to the Rio Grande Valley of Texas on a combined business and pleasure trip. Chile in the Valley Mr. Coats purchased 40 acres of citrus fruit land adjoining Marymont Estate, which is owned by Mike J. Kissick. Contract has been let for the planting of 1600 orange and grape fruit trees on the land.



At the left shows the unloading of pipe for the Cambridge-Petrolia gas line of the Cities Service Company. At the right is the outfit used for heating the second paint coat

Bureau Report Shows Production-Consumption Gain, Stock Loss in July

PRODUCTION of crude petroleum in July, showed an increase of two per cent as compared with the preceding month, according to figures just released by the United States Department of Commerce and Bureau of Mines. The total output was 64,972,000 barrels, a daily average of 2,096,000 barrels. As shown by the report, July was the sixth successive month in which there has been an increase.

Much of the increase is attributed to Texas where a total of 441,000 barrels was the gross output. The continuation of intensive work in the Panhandle, with deep sand flush from Spindletop were the causes of the Texas boost.

Oklahoma and California each showed a loss in recovery as compared with June.

The following states had greater daily average yield than was shown for June: Michigan, 61 barrels; Colorado, 1,148 barrels; Kentucky, 188 barrels; Louisiana Gulf Coast, 2,412 barrels; Montana, 2,567 barrels; New Mexico, 58 barrels; New York, 280 barrels; Osage County, Oklahoma, 345 barrels; Texas, 54,031 barrels; Texas Gulf Coast, 25,603 barrels; rest of Texas, 28,428 barrels.

Classification of the total production by gravity, showed approximately 1,715,290 barrels of light oil daily, and 380,580 barrels of heavy oil. The increase in light oil was 13,124 barrels daily and 24,480 barrels of the heavier product.

Total supply during July amounted to 72,139,000 barrels, which when added to total withdrawals from stock, 5,126,000 barrels, gives 77,265,000 barrels as the total demand for all oils. Subtracting exports of crude and refined products gives domestic demand as 67,034,000 barrels, or a daily average of 2,162,000 barrels. Since domestic crude production was at the rate of 2,096,000 barrels per day, there was a deficiency of 66,000 barrels per day in domestic supply. As compared with the same period in 1925, this represents an appreciable gain in demand. In July, 1925, domestic production was in excess of consumption by 151,000 barrels. Undoubtedly the margin between domestic consumption and production this year has had much to do with the stability of crude prices. This margin has held more or less steady for several weeks. In June it averaged 38,000 barrels daily.

Stock withdrawals, which have been noticeable during the entire year, were again pronounced in July. Stocks of crude east of California dropped 3,250,000 barrels. In California, light stocks saw heavy decreases, but there were slight additions to storage of heavy crude, including fuel oil. Heaviest stock withdrawals were reported from Northern Louisiana and Arkansas. Withdrawals at refineries were heaviest in Oklahoma.

Crude petroleum run to stills reached record figures during July, with 63,672,000 barrels of domestic crude, and 3,770,000 barrels foreign crude, used.

Imports dropped from 185,700 barrels daily, to 167,387 barrels. Mexico and Venezuela shared alike in this decrease, but there was a slight gain in the amount of oil brought in from other countries.

Gasoline production for the month amcunted to 24,927,000 barrels. The daily average of 804,000 barrels, however, was a decrease as compared with June. Domestic demand went above the billion gallon mark for the first time, its daily average of 779,400 barrels being an increase over June of 1.3 per cent, and over July, 1925, of 5.6 per cent. Stocks of gasoline at the end of the month were below those of June by 2,500,000 barrels.

Due to the let up in demand for kerosene and fuel oils, stocks of these products increased.

Completions for the entire United States gained 200 during July, the total number of wells brought in was 1825, as compared with 1625 in June.

BUREAU ANALYSIS OF PETROLEUM SUPPLY AND DEMAND

	May 1926 Barrels	June 1926 Barrels	July 1926 Barrels	July 1925 Barrels
Supply:				
Domestic crude production:				
Light	51,422,000	51,065,000	53,174,000	52,138,000
Heavy	11,134,000	10,677,000	11,798,000	15,625,000
Imports:				
Crude	4,502,000	5,571,000	5,188,000	4,155,000
Refined	2,016,000	2,341,000	1,979,000	1,693,000
Total supply all oils	69,074,000	69,654,000	72,139,000	73,611,000
Daily average	2,228,000	2,322,000	2,327,000	2,375,000
Change in stocks all oil	*2,595,000	†4,186,000	†5,126,000	1,081,000
Demand:				
Total demand:	71,669,000	73,840,000	77,265,000	72,530,000
Daily average	2,312,000	2,461,000	2,492,000	2,334,000
Exports†				
Crude	1,842,000	1,225,000	1,726,000	1,302,000
Refined	9,630,000	9,729,000	8,505,000	8,151,000
Domestic demand	60,197,000	62,886,000	67,034,000	63,077,000
Daily average	1,942,000	2,096,000	2,162,000	2,035,000
Excess of daily average domestic production over domestic demand	76,000	‡38,000	‡66,000	151,000
Stocks (end of month):				
Crude: East of California:				
Light	224,786,000	222,092,000	221,300,000	308,231,000
Heavy	59,223,000	59,340,000	56,884,000	
California:				
Light	37,179,000	35,405,000	33,583,000	43,411,000
Heavy§	88,180,000	87,389,000	87,761,000	72,388,000
Total crude	409,368,000	404,226,000	399,528,000	424,030,000
Total refined	118,673,000	119,629,000	119,201,000	123,807,000
Grand total liquid stocks	528,041,000	523,855,000	518,729,000	547,837,000

*Decreases. †Includes shipments to non-contiguous territories.
‡Deficiency. §Includes fuel oil.

Adjustable Plug Valve Is Easy to Operate

Easy operation at all times is recommended as the feature of the L-S adjustable plug valve. The valve is manufactured by The Lattimer-Stevens Company, 72 Yale Avenue, Columbus, Ohio.

The adjustment nut turns between stationary plates. By turning the adjusting nut to the left it raises the plug slightly away from the body, breaking the seal of the plug and body. The plug may then be turned easily.

Positive lubrication is assured by the grooves in the plug which extend between the lubricating chambers immediately above and below the plug. These chambers are filled with grease.
ing of the plug forces the grease from the upper chamber to the lower, and the lowering the plug reverses the action.

Other details will be supplied by the manufacturer on request.

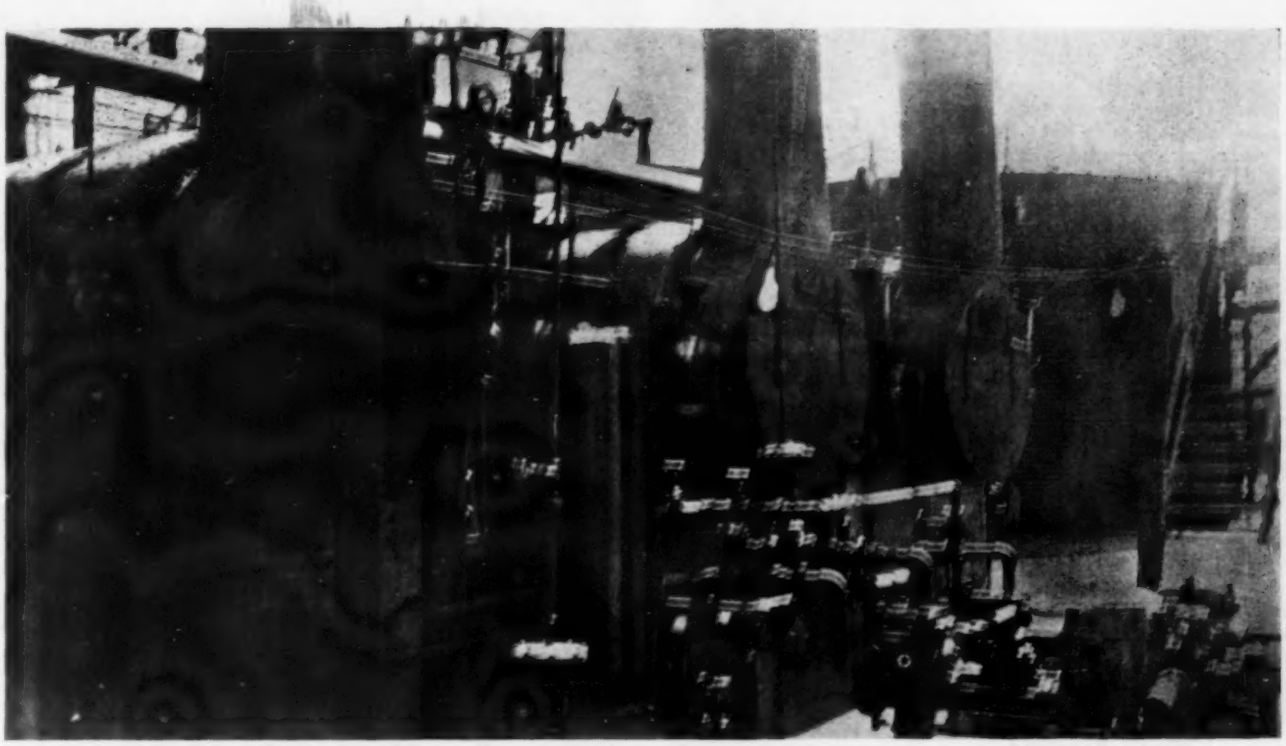


Figure 1.—Three 75 H. P. Boilers automatically controlled by system of diaphragm regulators installed by lease employees

Efficient Automatic Boiler Controls Made Entirely On Lease

Plant which regulates its own fuel and water supply saves wages of a fireman

By George Reid

IN all boiler plant installations, whether one boiler or a dozen, the features of dependable automatic control of firing, water supply and steam produced, are always given much consideration. Reliable control instruments greatly reduce the usual hazards and dangers of power plant operation, and are conducive to the practical elimination of the employment of labor for boiler watching only.

There are many types of boiler control instruments available and extensively advertised, some of which are very simple in design, others intricate; and many of them relatively expensive. The installation, however, of reliable equipment for the positive control of furnace temperatures, steam pressures and water supply does much toward eliminating the risk concurrent with steam generation. Such control can be so inclusive of all details of operation that the boilerman, as such, can be dispensed with entirely and such occasional inspection as the power unit would require can be given it by those employees active about the lease or plant in the other departments.

It is not advised nor suggested, of course, that the large power plant installation generating thousands of horse power daily, be entirely deserted and left to operate itself through the installation of a few control devices, for such installations, regardless of the perfection of the automatic control, are deserving of special attention covering their operation and maintenance. It is, however, becoming more and more the custom of operators of small steam power units, to so equip their boilers with positive acting control devices that no individual employee is necessary as a boiler fireman. Other men about the lease or plant performing other duties, are responsible for the operation of the power plant.

The writer has seen numerous installations in the plants and oil fields of the West Coast; power plants consisting from one to six boilers, so regulated by various types of devices that they required practically no attention in their operation. It is not, however, within the scope of this writing to discuss the merits of the many and various types of control instruments and their performance in operation as found employed in the territory mentioned, but this discussion is limited to a single installation of a power plant control system which is unusually interesting because of its striking simplicity of installation and operation, its positive and sensitive response to changing conditions with the boilers, and because this installation was designed, worked out, installed and successfully operated for about four years, by the members of the working crew on a small lease in the Signal Hill oil field. It is of interest because it represents the working men's practical demonstration of what the lease employees desired in an automatic control system; and also because of the economy or low first cost of the simple installation.

Three 75 H. P. Boilers

The boiler installation consists of three 75 horsepower horizontal return tubular Broderick oil field boilers, which have been in service on the lease of MacMillan and the Hope Oil Company at Signal Hill for four years. Figure 1 shows the installation, certain details of which will be discussed later.

The first step taken four years ago toward controlling the operation of the boilers was the installation of a low water alarm or whistle. This device is entirely home-made and fabricated of materials about the lease yard. These devices are of interest only because of the fact that they are home made, cheaply and easily constructed, and have been in unfailing service over a period of four years. A joint of one inch pipe six feet in length is connected to the lowest inlet to the water column, and because of this point of connection is always full of water unless the boiler water level drops below the point of entry into the water column.

In the event the water recedes below the entry point of the one-inch pipe steam enters and heats the pipe, causing it to expand. This expansion pulls a trip rod causing a figure-four lever arrangement to release a suspended weight which is attached by clothes wire to the lever on the whistle. When the expansion of the one inch tube causes the trap-like device to release the suspended weight, then the alarm whistle is caused to blow. This alarm is given while the water is well above the level which endangers blowing of the soft plugs.

In Figure 2 the figure-four trap-like arrangement with the suspended weight and a portion of the expansion tube, is clearly shown in detail. The simplicity of the device is such that nothing can interfere with its operation.

During the four years the three steam whistle alarm installations have been in service, with all three suspended weights wired to the same whistle, not one of them has ever failed to function. The low water alarm device can be fabricated for a cost (not including the whistle) of about $1.50 each. This is certainly cheap enough for dependable service.

Firing Regulated

The next step was one of actual control of the boilers operations. First the firing of the boilers was regulated. Being fired by natural gas, the men installed a Wilgus regulator, 2½-inch size, on the incoming gas line. Steam was conducted to this regulator off the steam head, or steam manifold at the top of the boilers, through a one-quarter inch line. The boilers are operated at 125 pounds steam pressure and any decrease in steam pressure due to taking on fresh water, etc., causes the gas regulator to open, admitting more gas to the burners and thus increasing the fire. Any increase in steam pressure on the boilers acts in the opposite manner, causing the regulator to cut down the volume of gas to the burners. The boilers are also equipped with the usual pop-off valves to relieve them of any suddenly built up heads of steam.

The Wilgus regulator on the gas or fuel line is shown as the foremost diapraghm regulator in the illustration, Fig. 1 in the center of the picture.

While one regulator controls the fires under all three boilers, it was found necessary to install separate and smaller regulators on the water in-take lines of the power units. These regulators are 1½-inch Masons, working off the float device in the second chamber of No. 5 Wright Improved Safety Water Columns. The regulator and water column installation is shown in detail in Figure 2. When the water level reaches the predetermined low mark in the water column, steam is admitted through a float in the second or back chamber of the column, and this steam is conducted through quarter inch lines to the regulator on the boiler water line, to the boiler needing the water. This steam pressure causes the regulator to open and thus admits more water to the boiler. Three regulators govern the water supply to the three boilers. This type of regulation would indicate that the water pump would necessarily be under full head of steam and bucking pressure at all times, but the quarter inch lines leading from the water columns to water regulators are so manifolded and provided with check valves, that whenever any single boiler requires water, the same stream of steam that opens the water regulator is conducted to a quarter-inch header line and over to a 1¼-inch Mason regulator on the steam line to the water pump. The pressure of the steam on the regulator opens this device, admitting steam from the boilers to the pump,—Thus when a boiler needs water it is forced to start its own pump, and when sufficient water has been provided the decrease in steam pressure on the regulators (water and steam) causes them to close and the boiler stops its own pump. The pump is not on pressure except when actually required for service.

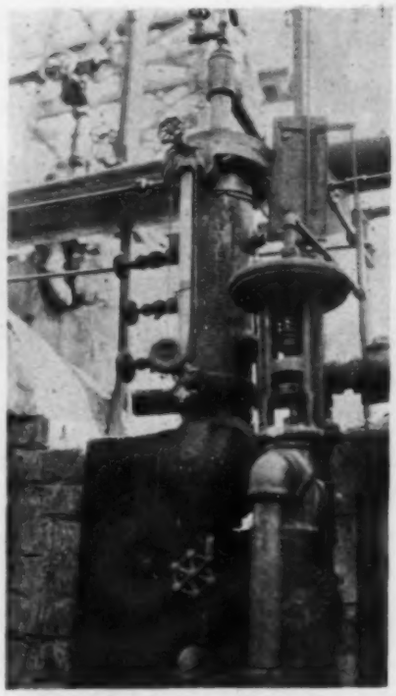


Figure 2.—Showing details of water column and diaphragm regulator on water line. Note Trap-like device above regulator is part of home-made low-water alarm as described.

The regulator on the steam lines to water pump is clearly shown in Figure 2. Two pumps are provided, as usual, one of them being auxiliary or emergency.

In this manner and through the use of five regulators, the men on the lease have secured automatic control of the power plant. The steam is controlled through its own energy by controlling the gas for the fires. The water is provided as needed by regulators controlling the action of the water pump. The boiler alarm whistle must blow whenever any device fails to function properly, so that it is actually unnecessary to bother with their operation except when they call, by whistling, which is very seldom.

The original tubes are still giving satisfactory service in these boilers, and the original soft plugs are in place at the rear, just above the tube bank. The lease employees point to the ease of operation, the positive and sensitive control of operations, and to the fact that the original tubes and soft plugs are still intact, with pride,—and after operating these boilers four years with no fireman or boilerman and no trouble—perhaps that pride is justified.

South Africa Did Not Use So Much Oil in 1925

Washington, D. C.—South African importations of petroleum products dropped in 1925 by 2,047,383 gallons, from the 1924 record of 39,698,792 gallons to a total of 37,651,409 gallons, according to advices to the Department of Commerce from Trade Commissioner Perry J. Stevenson, Johannesburg. The f.o.b value of the imports was £2,184,223, as compared with £2,180,337 in 1924 and the record £2,632,386 in 1920.

In consequence of the large American share of the trade in gasoline, kerosene, and lubricating oils, the imports from the United States were valued at £1,696,684 as compared with £1,663,024 in 1924. The Dutch East Indian imports totaled £431,988, a small decrease from the previous year's £462,923. By percentage of the total, the American share dropped from 78 per cent to 77.7 per cent, and the Dutch East Indian from 21.8 per cent to 19.8 per cent. The small balance was very minutely divided.

In 1925 the Union's imports of motor spirit (gasoline) made a new record of 20,889,828 gallons, a gain of a little more than 2,000,000 above the previous high mark in 1924. The value, £1,274,825, is still below the £1,462,270 for 1921, when only 11,339,180 gallons were imported. In 1925 the average f.o.b. value per gallon was 1.2205 shillings, as against 1.2708 shillings in 1924 and 2.57 shillings in 1921.

The South African trade in petroleum is tending toward bulk distribution in place of the case system that has been the standard for so long. This has been in part the result of competiton and in part the outcome of a larger volume that has made the bulk method an economic possibility. This system was first instituted by a British company in 1923 and was aided by a tariff differential of a penny (sterling) a gallon the duty being 2 pence a gallon on bulk and 3 pence on case importations.

Imports of kerosene, or paraffin, made a new record of 10,970,116 gallons, in 1925, an increase of about 465,000 gallons over the previous high figure of 1924. In spite of the increase in volume, the value dropped from £490,402 in 1924 to £465,182 last year. On the other hand, shipments of lubricating oils were somewhat disappointing. With the high level of industrial operations prevailing, it was expected in South Africa that imports would increase by perhaps 10 per cent. Instead there was a slight decrease from 3,631,733 to 3,587,577 gallons and from £410,682 to £383,246—the result in part of local production. The largest decline was in fuel-oil imports, those in 1925 being only about 25 per cent of the 1925 total, or 1,438,568 gallons. Most of this came from the Dutch East Indies. In addition, over 1,850,000 gallons were exported to Spain from stocks on hand.

Nigger Creek Production Reaches New Peak

Mexia, Texas.—Daily production in the Nigger Creek field rose to a new peak level of 22,085 barrels during the 24 hour period ending Tuesday morning from 33 pumping and flowing wells. The successful workover of the Transcontinental Oil Company's Erskine 1, with an initial production of 760 barrel on the pump after plugging back from 2827 to 2821 feet, leaves the southwest end of the field open for more extensions to the productive area, with Transcontinental holding virtually all the acreage as far as the river. The Erskine blew in August 21 with considerable gas pressure, but went to water after making one head of oil.

The Simms Oil Company's Rosson 1, a north offset to the Erskine well, was completed early this week flowing 800 barrels initial from regular pay at 2812-19 feet. The Transcontinental Oil Company's Rosson 7 has been completed with an initial flow of 1220 barrels at 2849 feet, and Rosson 4 made 595 barrels at 2842 feet. Cranfill-Reynolds & Godley Oil & Gas Company's Rosson 1-A, located near the southwest end of the producing area, flowed 2540 barrels initial from sand at 2808-13 feet, while the same parties' Rosson 3 flowed 450 barrels at 2841 feet.

Phillips Wildcat Producer Opens Up New Territory in West Texas

Cisco, Texas.—The Phillips Petroleum Company scored its first wildcat oil producer in Texas late Sunday on the Joe Winters farm in the southwest corner of Jones County, and less than a half mile west of the inland town of Shiloh, after drilling four feet into sand pay at a total depth of 2490 feet. The well filled up with oil in 8¼-inch casing, and cleaned itself Monday, thereby indicating a commercial producer without deeper drilling. The well is located in the southwest corner of the northwest quarter of section 19, T. & P. survey, block 19, and several miles southwest of a test drilled about four years ago with oil showing.

This discovery opens up a new stretch of territory in Central West Texas, and will cause a shift of lease buying to the west of the established producing areas in Shackelford and Callahan Counties. Phillips Petroleum Company holds about 2000 acres around the discovery, while Marland is also in possession of offset acreage after having swapped with Phillips for leases around Marland's wildcat now drilling in the southeast part of Jones County.

The semi-shallow oil sand horizon in Stephens County contributed two important extensions during the past week, including the Texas Fidelity Oil Corporation's D. C. Pratt 1, located in the northwest part of section 69, block 6, and about three miles southeast of Frankell. This well gauged 40 million cubic feet of gas in sand at 1906-60 feet, with a light spray of oil, and when drilled to 1970 feet the spray of oil increased to 12 barrels per hour, with gas pressure declining. The oil tests above 40 gravity. The Sun Oil Company's W. E. Carey 6, located in the northeast part of the northwest quarter of section 52, block 5, and two miles southwest of Caddo, flowed 100 barrels initial at 2220-31 feet, thus giving a minor extension to the semi-shallow pay horizon.

The Mid-West Exploration Company's J. P. Morris 1, located in the A. Newschaffer survey No. 950, near the Canary oil and gas pool in eastern Coleman County, blew in late last week with a flow of 23 million cubic feet of gas from sand at 2228-65 feet, with 8¼-inch casing at 1754 feet. A southeast extension to the Lester-Fry field on the Brown-Coleman County line is promised by Smith et al's wildcat test on the Cason-Grantham land, R. Honeycutt survey, as this test is showing wet gas and oil after drilling into sand pay at 1160 feet. Rathblott et al's Jones 1 is also showing oil in sand pay at 1150 feet, and the log is reported to be running favorable in comparison with the producers in the Lester-Fry field.

The Cook ranch field in Shackelford County has added a new oil producing horizon on the northeast side of the original field that is about 100 feet shallower than the discovery pay. Roeser-Pendleton, Inc., and Marland Oil Co.'s Cook 20-A, section 84, made 50 barrels at 1120 feet, and 24-A made three-quarters of a million cubic feet of gas and 100 barrels at 1122 feet. The same parties have opened up a new oil and gas area about five miles to the northwest of the Cook field, with an initial flow of 1,000,000 cubic feet of gas and three hundred feet of oil in the hole from two feet of sand at a total depth of 1300 feet. A string of 6⅝-inch casing is being lowered to complete the well, which is located on the J. H. Nail ranch, section 121, E. T. Railroad survey.

"Doheny-Fall Indictments Charge No Crime"

Washington, D. C.—Indictments pending against Edward L. Doheny and former Secretary of the Interior Fall do not charge the commission of any crime, it is asserted in a brief filed with the District of Columbia Court of Appeals, in accordance with a decision according to the defendants a review of a decision overruling their demurrers to the indictments submitted to the Supreme Court of the District.

The brief further alleges that the indictment was rendered on an erroneous assumption of the validity of President Harding's Executive Order transferring to the Secretary of the Interior the administration of the naval oil reserves. Since the rendering of the indictment, it is declared, the invalidity of the Executive Order has been judicially determined, wherefore, it is contended, the indictment amounts merely to a charge that Fall agreed to do that which he could not do and which Doheny well knew he could not do.

Latest Nash Dome Producer Is Field's Best One

Houston, Texas.—Rycade Oil Corporations' Wisdom No. 8, at Nash dome, completed August 25 for an initial yield of around 1500 barrels was flowing slightly more than 1000 barrels at the opening of this week, apparently a settled well. Production is still pipe line oil, making it thus far the best producer completed in the new field. Other wells made better initials but soon turned to salt water.

Following the success of the Wisdom 8, Rycade has made location for the No. 9, 300 feet south and 100 feet east of No. 8, and No. 10, 300 feet north and 200 feet west of the No. 8. At these points production better than any yet found at Nash dome is expected.

1400 Barrel Producer in Turbeville Field

Wichita Falls, Texas.—The Turbeville field in central Archer County contributed a 1400 barrel producer late last week when The Texas Company's Turbeville 5-C swabbed and flowed 1400 barrels initial from 29 feet of solid oil sand pay at a total depth of 1531 feet, while the same company's Turbeville 4-C swabbed 400 barrels from 27 feet of sand. Simms Oil Company's Turbeville 6-A swabbed and flowed 850 barrels at 1516-38 feet.

Pine Island Well Flows 500 Barrels

Shreveport, La.—Victor Wenzel and associates have brought in a well flowing at the rate of 500 barrels of 28 gravity oil per day from six feet of sand at a depth of 2206 feet, in the southeastern section of the Pine Island district. Wenzel's well, which recently was bailed dry at 1830 feet, is located in the southeast corner of section 15-20-15, on land owned by Thomas and others, about four miles northwest of the town of Dixie and about a mile and a half west of a semi-wildcat producing well drilled by D. C. Richardson just prior to his death, early in the year. Richardson's well, when first completed, pumped at the rate of 100 barrels of fluid per day, of which 80 barrels was oil, from a depth of 2269 feet. Wenzel and associates are drilling another well on the Wemple farm, in section 14, and have built a derrick on the Hunsicker property, in section 15, of the same township.

The showing made in the deep test drilled on the Haynesville structure by W. R. Ramsey, of Tulsa, in association with the Southern Crude Oil Purchasing Company and the Gilliland Oil Company seems inconclusive as regards the fertility of the newly-found deep sand. A string of 4½-inch casing was

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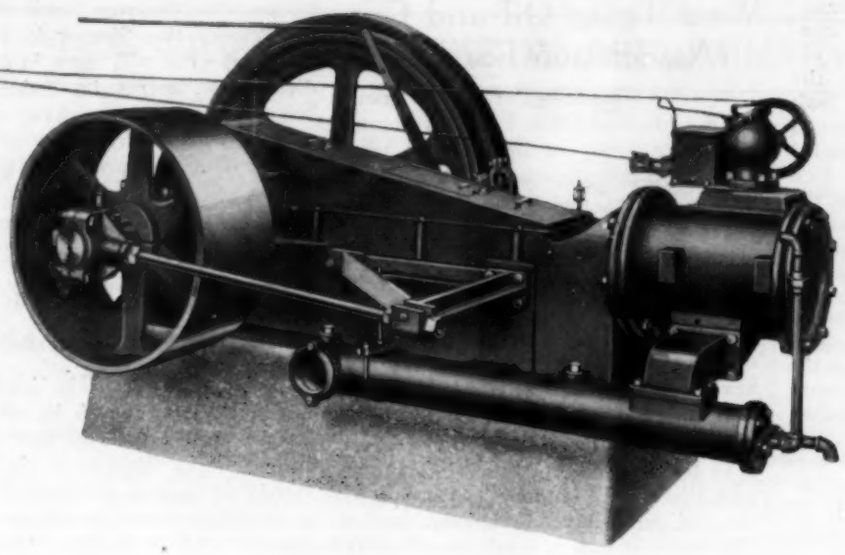

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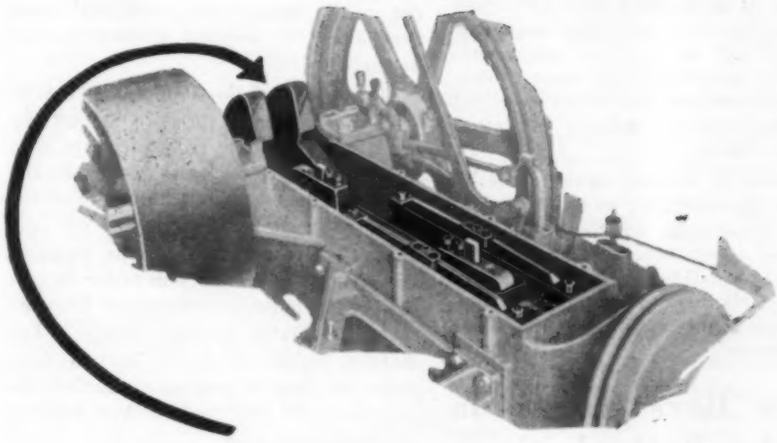

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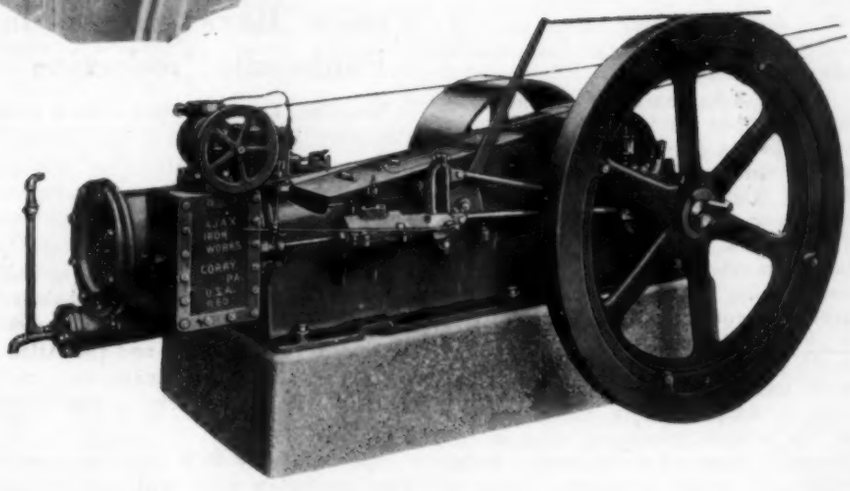

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cemented at 4513 feet, and a test made at a depth of 4530 feet yielded a considerable quantity of 34 gravity oil. When first bailed from the liner, the well yielded a quantity of hot salt water along with the oil. However, this water was exhausted by continued bailing, and oil rose in the hole to a height of nearly 3000 feet. Upon the resumption of bailing, all fluid was removed from the well, and, after operations had been suspended overnight, about fifteen barrels of oil was recovered by the bailer next day. It would seem, therefore, that the well's production may not be expected to repay the cost of the drilling operation. Other estimates, however, are more favorable. Some operators profess to believe that it may yield around upward of 200 barrels per day, on the beam.

Operators are now turning their attention to a pending test in Smitherman & McDonald's Oakley well, in section 29-23-11, on the Sarepta-Spring Hill structure, in Webster and Bossier Parishes. Casing has been cemented at 4650 feet, and the test may be completed during the current week. W. R. Ramsey and the Southern Crude Company, discoverers of the deep sand at Haynesville, are drilling another important deep test in section 1-22-10, on the Shongaloo structure, in Webster Parish, where they are fishing for drill stem at a depth of 4620 feet. The long string of ten-inch casing, set at around 3900 feet in the Humble Oil & Refining Company's Cox deep well in the Cotton Valley field has collapsed, and the crew is now engaged on a milling job. Fishing jobs are also in progress in the other deep tests being drilled by Dick Norton and the Ohio Oil Company in adjoining sections.

In the Arkansas fields, attention is centered upon the resumption of operations in the Simmons wildcat, owned by the Simms Oil Company, in section 9-18-13, where a spectacular gas blowout occurred at a depth of 2650 feet. The derrick, which was demolished, has been rebuilt, and the crew is now endeavoring to secure a core of the producing formation. The Natural Gas & Fuel Corporation has attained a depth of around 1400 feet in its Cordell well, located in the same quarter-section, in which a more conclusive test of the newest producing sand in Arkansas is expected to be made. Meanwhile, the major companies seem to have acquired all available close-in acreage.

The Sun Oil Company is reaming at a depth of 3675 feet in its Brown deep test, in section 8-18-15, of the El Dorado field, in Union County.

Humble Dividend

Houston, Texas.—The directors of the Humble Oil & Refining Company declared the regular quartely dividend of 30 cents per share and an extra dividend of 20 cents September 8, to be paid October 1 to stockholders of record September 11.

West Texas Oil and Gas Association Formed

Amarillo, Texas.—The West Texas Oil & Gas Association has been organized by a group of independent producers and operators in the Texas Panhandle district, and R. G. Barnum, pioneer operator in the district, has been elected president. J. O. Whittington, who is also a veteran oil producer in the Panhandle, was chosen for vice-president, while a treasurer and board of directors are to be elected at the next meeting, which will be held in the near future.

Membership in the new organization is to be restricted to those actively engaged in the oil industry, or in possession of oil producing acreage, and a committee is now at work in recruiting members. The qualifications for membership are listed below: Officers and directors, or designated representatives of any corporation, or stock company producing oil, or gas, or gathering, storing or manufacturing same; refiners; producers and operators engaged in drilling, and fee owners of actual producing lands.

According to announcement made by President Barnum, the association will shortly engage the services of a full-time paid secretary, and permanent headquarters will be set up in Amarillo. It is also planned to provide quarters for the use of the members during their leisure hours.

Prairie Buys Interest in Panhandle Production

Amarillo, Texas.— Prairie Oil & Gas Company has acquired a half interest in the producing properties and wildcat acreage held by the Shamrock Petroleum Company et al in Gray, Hutchinson and Moore Counties for a consideration of $1,500,000. of which one-half has been paid in cash, and the balance to be paid out of one-half of the oil produced. Eddie Jones and the Atlantic Oil Producing Company are joint owners with Shamrock in the Gray County properties.

Approximately 8800 acres of leases: four producing wells with a combined daily output of 1500 barrels, and 13 active tests are involved in this deal.

Unusual terms for the oil payment to be made by Prairie have been set forth in the contract, and this is Shamrock Petroleum Company et al will receive one-half of the oil and gas produced from the joint properties until Prairie has produced the equivalent of and paid over to Shamrock et al $750,000. Then after this oil payment has been made the entire production will go to the credit of Prairie until the latter realize $750 000, plus operating expenses and an additional six per cent for overhead. After this sum has been realized by Prairie, the Shamrock Petroleum Company et al will come in for an undivided half interest in all the holdings, but the latter parties have agreed to complete for Prairie three of the tests now drilling and provide casing for 15 others.

Dearth of Storage Stops Upward Production Trend in Panhandle

Amarillo, Texas.—The high production level maintained by Hutchinson County during the past few weeks has caused heavy inroads in the available supply of storage facilities in the field and at distant tank farms and tank car loading racks. Reserve tankage was being drawn upon by a number of the largest operators early this week, with the result that many additional tests are having to suspend drilling on top of the oil pay.

The failure of the Panhandle district to show a production gain during the past week was due to inadequate pipe line and storage facilities to handle the oil if produced, and a number of the operators are shutting down on producing wells that have to be pumped, or swabbed continually in order to participate at a maximum in the flush oil that is available on other leases. The district averaged 116,145 barrels daily from 395 active producers during the past week, or slightly less than 300 barrels daily per well.

Storage relief is within sight for the Panhandle producers, as 119, tanks having a combined capacity of 7,695,000 barrels are under construction, while a number of the smaller companies and operators are preparing to build earthen storage. Completed 55's and 80's in the Panhandle district on September 1 offered a combined capacity of 5,255,000 barrels, but most of this was filled with oil, although figures on crude stocks on hand are not available at present.

Gulf-Cline and Panhandle Refining Company's Dial 21, located north of the river in Hutchinson County, proved to be one of the large oil producers added during the past week, and flowed 1590 barrels natural from sandy-lime pay at 2875-95 feet. The majority of the completions were smaller than usual, while some of the companies are not shooting their completions pending a better market for the crude.

The Bay Shore Petroleum Company's wildcat test on the C. W. Bradford land in section 148, I. & G. N. Ry. survey, block B-2, Gray County, developed a flow of 80 million cubic feet of gas at 2630 feet, and two members of the crew were killed September 1 by the poisonous fumes while working in the cellar.

CONSERVATION BOARD'S PRELIMINARY REPORT

(Continued from page 28)

that might have been recovered to an amount equal to that actually taken out under the rush methods of competitive drilling and producting.

In the effort to escape the economic demoralization that has followed the discovery of each of the larger flush pools, attempts at community action have been made. In the Belvedere Gardens area in the Los Angeles Basin, four community leases were negotiated consolidating the oil rights of approximately 2,000 individual landowners. Four producing wells only would have been required rather than the possible 2,000, following the usual town lot practice, and although oil was not found when the deep test was made, the possibility of a community agreement was proved.

As an example of coordinated development by agreement, California furnishes the Dominguez field. Here cooperation between the few large operating companies permitted the adoption of a business-like plan, in which slow development and economic well spacing have reduced the number of unremunerative wells, increased the production per well, kept a large proportion of the wells flowing, decreased the cost of operating, permitted the adoption of best methods of lifting, and lengthened the life of the field. Although nearing the end of its third year, this field shows only a gradual decline as compared with other pools in the same State, and in the end this development program will doubtless justify itself in the increased returns.

Salt Creek.

The Salt Creek field in Wyoming should be referred to as unique among the larger producing fields in its freedom from uneconomic features in the program of development, a freedom due to cooperative effort in which an important factor has been the Federal supervision of operation on government leases. At the present time, the Salt Creek field furnishes further illustration of conservative development in a program for winning the oil from the lower sands that promises best returns to both the industry and the public. The productive area of the Lakota sand, less than four square miles, includes about 20 separate leases on federal and state lands, held by three companies but all operated by one company. Twenty-five wells have already been drilled through this sand, with large initial flows, but the only production of oil from the Lakota sand has been that incidental to the drilling in or the subsequent short test of each well. Thirteen other wells have been drilled to the top of this sand, and the number of wells planned will be only sufficient to equalize the royalties to both owners and to private royalty owners, and it is expected that not more than two wells will be drilled to each 40 acres. When the area is thus drilled up, and the market warrants drawing on this new supply of oil, back pressure will be maintained in the effort to obtain the maximum yield, a short test proving the material advantage of this method of conserving the gas. The government engineer supervising the federal leases estimates this shut-in capacity at Salt Creek, based on actual tests, as slightly over 70,000 barrels, a potential initial daily production in excess of the present production from the upper sands.

Air Pressure in Texas.

The practical worth of cooperation in planning development and in guiding operation is not only proved by experience, but the results of research now in progress point unmistakably to the urgent need of concerted action in development and operation of an oil pool. Recently the Texas Commission in accord with the opinion of the operators has considered the adoption of a general rule governing the use of air pressure in oil wells, action which illustrates the trend toward limitation of individual action so as to promote the common interest. The need of concerted action, whether by state regulation or by voluntary agreement, is now well-nigh universally accepted in any program of rejuvenation of a depleted oil pool, and the application of a similar principle to the conservation of gas-pressure in a new oil field as to its restoration in an old field would seem altogether logical and even more desirable.

Government's Own Problem.

The federal government is still the owner of vast areas embracing several hundred million acres of land, the title to which is held really in trust for the public generally. Within these areas are proven oil fields and also much unexploited territory holding, in varying degrees, promise of oil in commercial quantities.

All these areas, except some special reserves, may fairly be said to be wide open to private appropriation through lease or otherwise. There seems to be no discretionary power anywhere to resist the exploitation of these lands and the dissipation of the government's oil resources. The leasing of the Indian lands is progressively mandatory until exhaustion.

Production from such government lands has been, during the following specified period, as follows:

PRODUCTION FROM NAVAL RESERVES

Crude Petroleum—Barrels

1921	1922	1923	1924	1925
2,153,794	7,204,886	11,427,408	13,032,093	12,371,473

Gasoline Produced from Natural Gas—Gallons

1921	1922	1923	1924	1925
942,766	4,087,868	8,691,323	12,646,593	17,225,714

PRODUCTION FROM THE PUBLIC DOMAIN

Crude Petroleum—Barrels

1921	1922	1923	1924	1925
9,214,792	20,997,439	36,574,008	35,580,505	29,153,768

In excess of 574,444 barrels was produced by the Secretary of the Interior from the Red River oil operations in Oklahoma in the year 1925.

Gasoline Produced From Natural Gas—Gallons

1921	1922	1923	1924	1925
1,289,558	10,188,465	14,036,912	24,065,951	30,728,010

PRODUCTION FROM THE INDIAN LANDS

From 1899 to 1924 inclusive (fiscal years), there was produced from the Indian lands in excess of 596,795,000 barrels crude oil, and approximately 257,065,000 thousand cubic feet of natural gas.

During the fiscal year ending June 30, 1925, 48,485,697 barrels of crude oil were produced and 89,957,000 thousand cubic feet of gas.

In opening the public hearings on February 10, the Chairman of this Board said:

> "It is unwise to attempt measures for the conservation and orderly development of the oil resources of the country, with mandatory provisions of law forcing a disregard of the best interests of the Indians, the general public, and oil producers, and the oil industry. We have twice asked Congress to repeal or modify this statute and to vest discretion and authority in the Department of the Interior."

In reports to the congressional committees on Indian Affairs, under date of January 12, 1926, the Secretary of the Interior also said with respect to the mandatory provisions of the Osage oil leasing act of March 3, 1921:

> "With respect to leasing the remaining undeveloped lands of the reservation for oil mining, the section of the act referred to is arbitrary; and the Osage lands must be offered for lease regardless of the condition of the market, or of any other economic conditions affecting the industry. It is believed that the law should be amended so as to allow the Secretary of the Interior some degree of discretion in the matter of developing the remaining oil resources of the Osage Reservation, to the end that the Osage tribe and the Secretary of the Interior may have equal opportunity with independent lessors of oil and gas lands to consider the conditions of the market, and other relevant industrial conditions, and to proceed in the matter of advertising additional lands for leasing as may seem best for the tribe. Amendment of the law to permit the exercise of such discretion seems necessary if the Osage tribe is to obtain the greatest benefit from the oil reources of their reservation."

Government Leasing System.

While it is true that the present leasing system of the federal government provides for prompt and continuous development with competitive drilling, the administrative policy of late has fully recognized the advantage to landowner, oil operator, and public alike in delaying production in periods of acute overproduction and as far as the statutes permit discretion, extreme leniency has been the rule in granting applications for relief from the full drilling requirements as set forth in the terms of the lease. The desire of far-seeing operators to shut in production until the oil from their wells was needed has been fully met with sympathetic action by the federal officials. Few if any private landlords have been so liberal. The field engineers representing the Department of the Interior have also practiced conservation in their enforcement of every possible measure to prevent physical waste and to increase recovery, and in this the cooperation of the lessees has become more and more evident. Federal supervision of this type commends itself to the industry.

The story of the development of the federal oil lands is not unlike that of privately owned lands, except that a remedy has been available, that of legislation by congress. But legislation, even when free from constitutional ques-

tions, does not evoke popular support when its purpose is avowedly to put brakes on development of natural resources. This stumbling block is recognized whether federal or state legislation is proposed.

National Defense Requirements.

Under its constitutional power to provide for the common defense, the federal government should continue to make and execute plans for an adequate supply of petroleum for all military and naval needs of the future. Tank storage sufficient to meet initial demand should be built and maintained intact against a war-time emergency. Underground reserves should be preserved to supplement the commercial supply as the next line of defense, and in the administration of these reserves of oil in the ground which form "an important part of the national insurance," future security not present economy should be the sole guiding principle.

Current peace-time requirements of those branches of the government responsible for the national defense are approximately 20,000,000 barrels of petroleum products a year. These requirements are adequately provided for under the present normal rate of production. In case of war, the national defense requirements would, of course, immediately increase many fold. This larger quantity would include the direct requirements, that is, the products actually used by the agencies of the government engaged in national defense operations; and the indirect requirements—the amount which will be needed industrially to carry out the munition program, or other similar programs of these agencies.

The production from oil wells within the boundaries of the United States at present is in excess of the estimated maximum requirements for national defense in time of war.

It is barely possible that future discoveries may reduce, or possibly entirely eliminate the need for petroleum fuels in the national defense. It is also conceivable that substitutes for mineral lubricants may be developed on a scale sufficient to meet major requirements. With the development of the Diesel engine and its adaptability to airplane and motor vehicle use, the military consumption of petroleum as fuel will be reduced per horsepower.

Storage Reserves.

The report of the Naval Oil Reserve Commission was made available to the Federal Oil Conservation Board, and, after consideration thereof, the board concurs in general with the conclusions and recommendation of the Reserve Commission. The Board believes that steps should be taken to put into effect the principal recommendations therein, with such modifications as may be necessary in the light of information obtained subsequent to the submission of the report.

The war-time oil requirement of the Navy in any overseas campaign would probably include the major portion of the whole deep-water tonnage under the United States flag. The increasing use of internal combustion engine drives on commercial carriers makes the liquid fuel more and more necessary for war-time water transport. The logistic services of the army and many of its combat weapons, such as tanks, tractor-drawn artillery, and airplanes, are dependent upon petroleum products for fuel and lubrication. Should the oil supply accessible to the United States become exhausted and no satisfactory liquid substitute be developed, it would be necessary to resort to coal for propulsion.

Our entire war-time reserve should not be in the form of refined products placed in tanks, for two reasons. First of all, the future needs of the army and navy for petroleum products may be in a ratio quite different from that of present use, and in view of the natural tendency of gasoline or even crude petroleum to waste when held in storage, a better policy is considered to be the storage of the higher grades of fuel oil or topped crude, from which the needed products could be derived.

Further, it is important that there should be an underground reserve in the event that our commercial supply becomes exhausted before that of other nations. This underground reserve should obviously not be drawn upon unless and until other sources become insufficient.

Inquiry Will Continue.

The Board's inquiry will continue a search for pertinent facts. The government as the largest landowner is committed to practical conservation of irreplaceable raw materials, by the protection of the public estate and the guidance of its development. Especially is such an obligation sacred and inescapable as it concerns the great sources of

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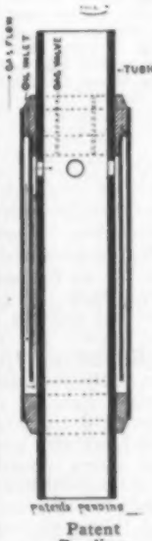

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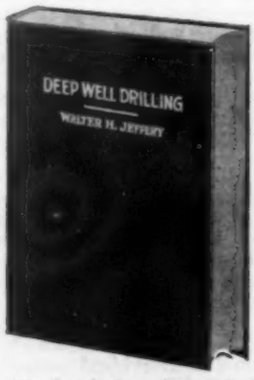

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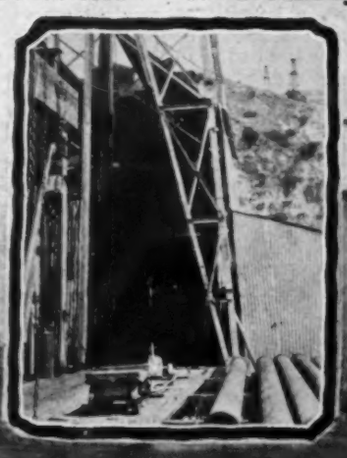

The Steel Equipped Well is Safe

energy, the coal and petroleum deposits in government ownership.

State governments should promptly study the economic advantage of cooperative action by land-owners and oil-operators, looking toward sane development of new fields and consider legislation authorizing cooperation agreements, under proper safeguards. And State legislation, with the declared purpose of conservation, should be enacted to stop the waste of gas, the loss of its content of gasoline, and the even greater loss incident to reduction of gas pressure in the oil sands.

There should be active cooperation between the oil-producing States in the study of proposed legislation to the end that uniform laws may be enacted, or even agreements or compacts entered into between the States, subject to ratification by congress. Even more pronounced should be the cooperation between the State agencies having authority in the regulation of oil and gas production, and the federal bureaus, whose investigative fields are essentially coterminous with the administrative jurisdiction of the State organizations. Such cooperation would be especially effective in the oil fields of the public-land States where federal leases and reserves are scientifically supervised by federal engineers, who can attain best results only with the full cooperation of the State officials. An excellent beginning in this cooperation is already in force.

Cooperation in Industry.

Cooperation within the industry can effect economies all along the line: in development and production, a better balancing of supply to demand, when and where the oil is needed; in transportation, better planning, thus avoiding cross-hauls of crude and cross-hauls of products; in distribution, less duplication of marketing facilities, which at times even involve an expense equal to the cost of production and refining. Large savings in both production and refining are possible through the general adoption of the best technique already used by the more progressive units.

Cooperation within the industry is recommened in both research and action, in discovering the best practice and in adopting it. Field cooperation between neighboring operators in preserving back pressure and reducing the gas factor is an example of practical conservation, or if it is too late to do this, field cooperation can take the form of building up pressure by artificial means. United and coordinated effort is the method recommended.

The complete organization of cooperative effort is recommended, with simple but effective working units that will insure full contact of the industry with both State and federal governments and continuous contact between all operators in an oil field. Cooperation of the industry with the government in planning and carrying out research is necessary, to make full use of all the facilities, resources, and personnel available.

HUBERT WORK, Chairman.
DWIGHT F. DAVIS.
CURTIS D. WILBUR.
HERBERT HOOVER.

The President, The White House,
Washington, D. C.

Doherty Caustic in Criticism of Hughes' Talk

By Clarence L. Linz

Washington, D. C.—Bitter criticism of former Secretary of State Charles Evans Hughes, whose statements before the Federal Oil Conservation Board on May 27, last, are declared not to represent the views of the American Petroleum Institute, is voiced by Henry L. Doherty, in a letter of more than 20,000 words filed with the board and by it made public last week.

Mr. Doherty's letter was written under permission extended him by the board to file a written reply to Mr. Hughes' statements, and has been delayed by reason of a lengthy Mexican trip from which he has just returned.

Although disclaiming any unfriendliness for the counsel of the American Petroleum Institute, the animus which exists between the oil man and Mr. Hughes is evident in the former's letter. The former Secretary of State, it is declared, has only a "partial grasp" of the problem and then only of one side of the controversy, and his statement before the board is characterized as "apparently nothing more than his own rearrangement of the matters handed him by the oil lawyers."

Mr. Doherty declares himself "astonished" at the statements made by Mr. Hughes, whose definition of conservation as given the board is characterized as "unique." Further, the board is told, "Judge Hughes' statements concerning other phases of the oil problem are just about as wrong as his statements about conservation."

The report of the Committee of Eleven is also severely criticized and, in Mr. Doherty's opinion, is a mere joke to the well-informed technical men.

If the federal government has no power to conserve oil and prevent waste, it is asserted in the letter, our plan of government is defective, "because the power is not vested any place for us to do that which may be necessary for our national defense."

"In my opinion," Mr. Doherty declares, "congress can not only legislate regarding the production of oil but in doing so congress will not yet be even within sight of the twilight zone of the powers given to congress to provide for the common defense."

Mr. Doherty's comment as briefly summed up in the beginning of his letter to the board was as follows:

The statement made by Judge Hughes astonished me.

"Replying now more specifically to the statement read by Judge Hughes, I must confess that in many ways I was so astonished by some of the things contained in his statement that I am still somewhat at a loss to know how to reply to them. It was my understanding before this hearing was held that it was universally agreed that the report of the Committee of Eleven was so extremely fanciful and exaggerated, that by common consent, it was considered best for the good of the industry to simply endeavor to drop this report from sight. It was an astonishing thing to me when I found that Judge Hughes' statement repeatedly referred to this report and gave the impression that he was completely endorsing it. The truth of the matter is that this report is hopelessly inexact and is so exaggerated in many ways as to be grotesque. It is true that a number of the men who took part in the drafting of this report still attempt to defend it, but so far as I know there is no one willing to risk his reputation for truthfulness and intelligence coming out and saying that he believes that this book is truthful and accurate from cover to cover. In almost every case they want to exclude some or many parts of what appear in this book on the plea that these particular things are no part of the body of the report or for some reason or the other. It is a most novel idea to me that a group of men can cause a book to be issued that contains exaggerated and untrue statements and then studiously attempt to justify it, and resent criticism of it on the plea that much of it is true. None of us dispute the fact that a lot of what is printed in this book is true, but many of us do contend that in all important matters which should enable the casual reader to judge for himself of what the magnitude of our future petroleum supply may be, the report is not only inaccurate but is exaggerated to the point of being grossly misleading. The last thing I ever thought Judge Hughes would do would be to allow his clients to restate or reaffirm untrue evidence.

"It is a mere waste of time, however, toargue about the accuracy of this report, unless those who wish to contend for its accuracy are first willing to vouch for the accuracy of all of the matter contained therein from cover to cover. There is probably no one who will do that but everyone who had any responsibility for the production of this book, if allowed to eliminate what they can not vouch for as being true, should then be willing to say without reservation or equivocation, that the remaining portion is true.

"If you start to point out what is untrue in the book, your opponent is apt to plead ignorance on that part of the report or to admit the inaccuracy of whatever part he finds you are prepared to disprove. The only way to get anywhere is to definitely insist that your opponent eliminate nothing, and thereby avoid discussion of it, except that which he definitely admits is untrue. This book is so contradictory that it needs no man of Judge Hughes' training and experience to realize that it is absurdly exaggerated and untrue, and I am at a loss to know how he can justify his seeming endorsement of it."

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INTERNATIONAL SUPPLY CO.

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Say you saw it in The OIL WEEKLY

Crane - Upton County Well Flows 4000 Barrels

San Angelo, Texas.—The lower horizon in the saturated lime pay in the Crane-Upton County district furnished another big oil producer on the afternoon of September 3 when the Independent Oil & Gas Company's Emma Wooley 2, section 3, G. C. & S. F. survey, flowed 4000 barrels of 28 gravity oil on the initial gauge at a total depth of 2213 feet. This well began showing oil in lime at 2034 feet, but did not develop into a flowing well until the big pay was tapped at 2213 feet. Cut oil began showing shortly after the completion of the big producer, as was the case with the Dixie Oil Company's Hughes 4, a northeast offset, which flowed 390 barrels hourly at a total depth of 2180 feet, with the tools in the hole, and soon began making about one-half cut oil. The Wooley 2 is flowing through one-inch choke, and early this week was reported to be making about 3500 barrels of fluid daily with more than 40 per cent cut oil in evidence, but the fluid responds to Tret-O-Lite readily.

The Independent Oil & Gas Company's Len Taylor 4, located on the Crane-Upton County line and 660 feet due east of the company's discovery well on the same tract, came in last week flowing 400 barrels of pipe line oil daily from sandy-lime pay at 2046-48 feet, and early this week was showing signs of increasing. The Taylor 1 was completed last February flowing 120 barrels daily at 2045 feet, and continues to flow this amount daily through tubing.

The Church & Fields area in northeast Crane County added two new oil producers during the past week, including the Magnolia Petroleum Company's University-O'Keefe 1, located in the northwest corner of section 38, block 30, with an initial flow of 168 barrels of oil from regular sandy-lime pay at 5051 feet. The Tidal Oil Company's University 1, a west offset to the discovery well in section 34, flowed 75 barrels Sunday from pay at 3013-38 feet, with drilling still underway. The latter test has a surface elevation of 2585 feet, and is rated good for 250 barrels on the pump, with considerable gas present. This new field is adding new locations each week, and a sizeable drilling campaign is promised before the end of the year, with Magnolia, Tidal, Prairie and Gulf taking the lead on drilling.

Humble Oil & Refining Company's J. T. McElroy 1, located in section 30, and about two and one-half miles northeast of the Church-Fields area, logged the top of the salt at 1560 feet, being about 390 feet lower than the usual salt horizon in the field proper.

Gulf Production Company's J. T. McElroy 3, located about half mile up the section line from the same company's wildcat discovery well in eastern Crane County, has been completed with an initial production of 270 barrels natural at a total depth of 2818 feet in gray lime. This well showed for a 150 barrel producer in the discovery pay at 2721-60 feet in brown lime, and deeper drilling resulted in the discovery of the gray lime pay, without having water trouble. Gulf is moving in steel for two 80's to serve this producing property.

Simon et al's wildcat test on the J. M. Shannon ranch in Crockett County is shut down for orders with an estimated flow of one-quarter million cubic feet of gas at 2378 feet. This test is located in the center of the south 480 acres of section 19, block Y-Z, E. L. R. R. survey.

Eastern Pipe Line Runs

Pittsburgh, Penna.—Crude runs for July by eastern pipe line companies reached 1,959,400 barrels, a daily average of 63,206 barrels, against 64,131 for June. Deliveries for July were at an average of 160,945 barrels daily, a slight gain over June when the average was 160,257 barrels daily. Stocks for the eastern territory at the end of July reached 9,734,687 barrels. Stocks at end of June were 9,585,904 barrels.

Figures for the several companies follow:

	Runs from Wells		Other Receipts		Regular and Other Deliveries	
	July, 1926	July, 1925	July, 1925	July, 1925	July, 1926	July, 1925
National Transit	163,355	163,535	472,556	735.318	669 949	795,554
Total 7 months...	1,119,436	1,149,964	3,903,284	4,810.544	4,940,256	5,872,688
Southwest Penn	101,686	86,681	748,366	669,335	854,357	805,959
Total 7 months...	630,966	571,519	5,113,929	4,590,671	5,771,639	5,127,102
Eureka Pipe Line ..	392,990	367,819	332,453	486,527	740,346	847,863
Total 7 months...	2,555,020	2,436,351	2,646,342	2,518,827	5,246,835	5,475,750
Buckeye Pipe	454,589	453,850	2,213,290	2,097,402	2,495,370	2,308,711
Total 7 months...	3,093 829	3,009,734	13,451,028	13,762,764	17,360,661	17,098,407
Indiana Pipe Line...	10,828	11,985	2,078,100	2,301,974	2,083,734	2,319,849
Total 7 months...	70,676	81,389	14,536,340	15,000,700	14,576,348	15,113,470
Cumberland Pipe Line	282,212	313,908	-320	291	251,535	295,567
Total 7 months...	1,901,461	2,137,690	1,024	932	1,870,208	2,166,312
Southern Pipe Line..	.....	.....	122,380	305,422	10,664	271,588
Total 7 months...	.....	.....	1,077,964	1,362,144	1,075,269	1,502,430
N. Y. Transit Co. ...	21,334	19,566	549,001	282,739	648,784	522,403
Total 7 months...	137,544	131,823	4,355,366	3,907,745	4,430,740	3,854,027
Northern Pipe Line	.....	.....	756,955	467,092	786,202	568,242
Total 7 months...	.....	.....	5,830,016	6,270,321	5,863,274	6,309,544
Illinois Pipe	684,910	694,990	230,983	562,570	1,108,395	1,115,998
Total 7 months...	4,552,076	4,627,877	2,853,308	3,172,968	6,959,272	7,887,839

Spindletop Production Reaches 93,800

Beaumont, Texas.—Spindletop's deep sand extension had reached a new peak of 93,800 barrels early this week following completion of three wells Sunday and Monday with a combined initial output of 9000 barrels. There is no decline in drilling in evidence, and a further gain in production is yet expected although the peak was named for the present week.

Atlantic Oil Producing Company added its third producer on the McLean lease to the south of the big play Sunday bringing in the No. 3 for an estimated 5000 barrel flow from 3216 feet. Almost simultaneously Yount-Lee completed its Gladys City No. 6 for 3000 barrels from 3250 feet. The Gulf's Weed No. 5 began flowing 1000 barrels early Monday.

Rio Bravo's No. 7 well on the T. & N. O. right-of-way lease on the east edge of the extension area came in a wild gasser late Monday night throwing rocks and sand for several hundred feet. Early Tuesday morning the well caught fire and burned the derrick and rig beyond use. Shortly following the conflagration the well bridged over and sanded up. The hole was considered by operators as ruined, but outside of its own condition there was no damage wrought to nearby wells. Crews on neighboring wells were forced to retreat to safety when the well started blowing wild and nearby operations were shut down for more than an hour. The roar of the gas could be heard for several miles, and workmen close in to the well were forced to stuff their ears with cotton before going back on the job. The gasser blew in from a total depth of 2511 feet.

Offsetting the No. 7 T. & N. O. the No. 6 is producing 60 barrels after coming in last week. Derricks are going up on the Nos. 8 and 9. Rio Bravo has made location for T. & N. O. 51 between the Nos. 1 and 3 and for the No. 52 between the Nos. 2 and 4.

The attorney general's office held September 4 that the Jefferson County commissioners' court had no right to lease for oil or gas purposes the highway running through the heart of the new Spindletop extension. Such a ruling will withhold any operations on several acres of proven territory reaching for almost half a mile along the T. & N. O. right-of-way.

J. Stickel, sales manager for Crown-Central Oil Corporation, Houston, spent the past week in Louisiana on business.

Carl Russ, chief clerk for Gulf Production, Houston, is back on the job after a vacation on the Gulf of Mexico. Carl spent two weeks counting pennies which he recently won on estimating Spindletop's flush production.

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8033 ft. deep* and drilled throughout with ~~STANDARD~~ Seamless Drill Pipe

[*August 27, 1926]

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Today, this astounding well — owned and being drilled by the Chanslor-Canfield Midway Oil Company, in the vicinity of Los Angeles — is 8033 feet deep and still drilling (Aug. 27.) Electricity furnishes the motive power.

As an engineering feat of its kind, it has no equal. As a thorough test of the possibilities of drilling machinery, it is invaluable. As a means of developing further geological knowledge, it will do immeasurable good. Much credit is due the "C. C. M. O."

All of which is *conclusive* evidence that progressive operators recognize the value of the additional safety factor of seamless pipe. To ~~STANDARD~~-ize your wells is to "play safe." Investigate this *proven* product today! Our informative and interesting folders forwarded on request.

"Hats off"—to these men!

TOP ROW, left to right: M. J. Foster, Ray Walters, W. R. Bropher, R. L. Seals, O. F. Culwell, C. G. Etchison, and J. Carney MIDDLE ROW: Paul Venatta, M. J. Turley, R. W. Bennett, H. E. Bradley, driller; A. E. Spear, driller; G. E. Norton, driller. LOWER ROW: W. W. Bird, V. B. Kimmel, H. R. Williams, Transportation Foreman; Geo. E. Ruggels, Drilling Foreman; N. W. Wickersham, Engineer; J. T. Harryman, Supt.

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Say you saw it in The OIL WEEKLY

Thirteen Million Barrels Steel Storage Provided in Panhandle

Will require 1,500,000 barrels additional space each month for some time to come

Amarillo, Texas.—Steel storage facilities in the Texas Panhandle district amounted to 5,255,000 barrels on September 1, with construction work underway on 7,695,000 barrels of facilities, thereby providing a total of 12,950,000 barrels of tankage for the district. These figures do not include tanks having a rated capacity of less than 55,000 barrels, although the small lease tanks and emergency storage used around the producing wells have an aggregate of more than one million barrels of storage facilities.

About 1,500,000 barrels of large tankage facilities were added to the Texas Panhandle district during the month of August, and this rate of increase is expected to be maintained for a number of months, although the movement of crude in tank cars from the district to Mid-Continent refineries and the shipments of crude will follow the completion of the Santa Fe Railroad's spur line from the town of Panhandle to the heart of the Hutchinson County field.

The new tankage going into Hutchinson and Carson Counties is largely to take care of the current overproduction in the former, and considerable additional tankage will be required before the coming winter has elapsed, as the nature of the crude presents a very difficult problem for the pipe line companies in pumping the oil during cold weather. In anticipation of cold weather troubles, many of the operators are erecting their storage in close vicinity of producing leases while all tanks are being equipped with steam coils.

The use of steam coils in the storage tanks is necessary should the crude be removed during the winter months, as the oil can not be removed without steaming when low temperatures prevail. Most of the operators are placing steel roofs on their large tanks, although the sulphur fumes arising from the stored oil abbreviates the life of such roofs.

Permission for use of earthen storage tanks in the Texas Panhandle district by the Texas Railroad Commission has resulted in a few of the small operators and independent companies giving this type of storage a trial, but it is not expected to become wide spread, since the difference in cost between the reservoirs built according to the specifications outlined by the commission and that of steel tanks is not very attractive, considering the salvage and loss of oil by evaporation.

Fifty-five thousand barrel capacity tanks are proving to be the most popular with the Panhandle operators for storing crude as evidenced by the accompanying table, which lists 154 tanks of this size as being completed and under construction as compared to 56 of the 80,000 barrels size. Gulf and Prairie are the principal users of the large sized tank, while Marland is cutting down seven 80's at one of its idle tank farms in Oklahoma.

Although no figures are available at present for comparative purposes, there has been a large number of second hand tanks cut down from old tank farms in Oklahoma and Texas, and rebuilt in the Panhandle. This policy of the major companies has cut down the sales of the steel mills, but has created a volume of tank work that is keeping all the tank concerns operating at capacity, while deliveries on new work is not as prompt as was the case one month ago.

Panhandle Storage Tanks

A complete survey on all large steel tankage in use and under construction in the Texas Panhandle district on September 1, 1926, is listed below:

	No. Tanks Comp.	No. Tanks Bldg.	Size Tanks in Bbls.
Carson County—			
American Refining Co.	..	1	55,000
Gulf Production Co.	1	..	55,000
Gulf Production Co.	6	18	80,000
Humble Oil Refining Co.	2	4	55,000
Humble Oil & Refining Co.	..	4	80,000
Marland Pipe Line Co.	2	1	55,000
Plains Pipe Line Co.	7	..	55,000
Prairie Pipe Line Co.	..	15	80,000
Skelly Oil Co.	1	..	55,000
The Texas Company	1	..	55,000
Gray County—			
Humble Oil & Refining Co.	1	2	55,000
Magnolia Petroleum Co.	25	16	55,000
Wilcox Oil & Gas Co.	1	..	80,000
Hutchinson County—			
Canyon Oil Co.	..	2	55,000
Coble-Whittenburg Oil Co.	1	..	55,000
Cockrell-McIlroy Oil Co.	..	1	55,000
Devonian Oil Co.	..	1	55,000
Dixon Creek Oil Co.	..	3	80,000
Dixon Creek Oil Company	..	3	55,000
Echo Oil Company	..	1	55,000
Empire Gas & Fuel Co.	..	4	55,000
Gulf Production Co.	3	1	80,000
Goldelline Oil Co.	..	1	55,000
Japhet Production Co.	1	1	55,000
Lucky Ten Oil Co.	..	1	55,000
Marland Pipe Line Company	9	5	55,000
Marland Pipe Line Co.	..	7	80,000
McMan Oil & Gas Co.	..	2	55,000
Mid-West Exploration Co.	..	2	55,000
J. R. Phillips et al	..	2	55,000
Phillips Petroleum Co.	17	9	55,000
Plains Pipe Line Co.	1	..	55,000
Prairie Pipe Line Co.	3	2	55,000
Relief Oil Co.	..	1	55,000
Roxana Petroleum Corp.	1	..	55,000
Roxana Petroleum Corp.	..	2	80,000
Skelly Oil Co.	6	5	55,000
Skiatex Petroleum Co.	..	1	55,000
Westex Oil Co.	..	2	55,000
Potter County—			
Amarillo Refining Co.	1	..	55,000
Wheeler County—			
Mid-West Exploration Co.	1	..	55,000
Capacity Comp. Tanks	91	..	5,255,000
Capacity Building Tanks	...	120	7,650,000

33 New Wells Starting at Seminole City

Tulsa, Okla.—A total of 33 new wells are starting in the Seminole City field area of Seminole County. Added impetus to the development of the area was given by the Barnsdall Oil & Gas Company's Carter 3 well, in the southwest of the southeast of the northwest of section 24-9-6, which increased from 258 barrels to 1720 barrels when drilled to 3934 feet. The 18 wells already completed in the field are now making 15,300 barrels a day.

The Indian Territory Illuminating Oil Company apparently found the edge of Wilcox production on the east side of the field with its James 2 well in the northeast corner of the northwest of the southeast of section 24-9-6. When deepened out of the Hunton lime to the Wilcox sand a hole full of water was found at 4231 feet, in the sand.

Garfield County Wildcat Has Oil in Wilcox

Tulsa, Okla.—The Roxana Petroleum Corporation has 3000 feet of oil in the hole in its Reed No. 1, a semi-wildcat test in the southwest corner of the northeast of section 34-24-3, in the northwest part of Garfield County, north of Garber and southwest of the Tonkawa field. The test is now shut down until adequate tankage can be erected.

Production is coming from the Wilcox sand picked up at 4854 feet and drilled in one foot. The test has prospects of being a good producer when drilled deeper into the Wilcox pay. In the event commercial production is found, considerable new territory will be opened for development.

James A. Anderson, vice-president of the Humble Oil and Refining Company, Houston, is taking a month's holiday trip in the Pacific Coast region, accompanied by his wife. He expects to return late in September.

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Fifty-eight minutes after the pumps were started on this job they were shut down. Thirty minutes more were consumed in making the change and landing plug. Total Time: 1 hour, 28 minutes.
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Say you saw it in The OIL WEEKLY

More Than 1000 Wells Drilled or Drilling In Texas Panhandle

By H. H. King
Staff Representative

Amarillo, Texas.—Field operations in the Texas Panhandle district have reached large proportions from a statistical standpoint, and at the close of last week the district was credited with having more than 1000 completed oil wells and new tests that were underway, or getting started. These figures do not include the completed gas wells, which number more than 50, and are scattered over seven counties. The number of completed oil wells in the five counties furnishing oil production in the Panhandle jumped above the 400 mark during the past week, with 10 completed wells on the inactive list, and 19 tests shut down on top of the pay awaiting pipe line and tankage. Current drilling reports on the district show 373 active tests; 73 tests shut down for storage, fuel, water, funds and equipment; 141 derricks and rigs; and 48 locations, making a total of 635 tests that remain to be completed, with favorable prospects of about 80 per cent of these furnishing oil or gas production.

Hutchinson County leads all other counties in the district by a wide margin on field work, and at the close of last week this county had 253 active tests; 37 shut down; 96 derricks and rigs; and 35 locations, making a total of 421 operations, while the county has 331 active oil producers.

Considering that all but 15 of the producing wells in the Texas Panhandle are located from 20 to 35 miles from the nearest railroad point, and that about 500 of the operations now being carried on field reports covering the district are like-

More Wells But Little More Oil in Panhandle

Amarillo, Texas.—Daily average production during the past week in the five counties producing oil in the Texas Panhandle district is listed below, by companies, with the total producing wells included:

	No. Wells	Average Daily Prod.
Carson County—		
Amarillo Oil Company	1	30
American Refining Company	5	435
Gates Oil Company	1	10
Gulf Production Company	13	385
Marland Oil Company	12	2,110
W. W. Silk et al	2	80
Skelly Oil Company	2	90
Sunny Jim Oil Company	2	50
The Texas Company	11	245
Totals	49	3,435
Gray County—		
Empire Gas & Fuel Company	1	10
Prairie-Shamrock et al	2	1,135
The Texas Company	1	5
Wilcox Oil & Gas Company	5	2,520
Totals	9	3,670
Hutchinson County—		
Amerada Petroleum Corp.	7	635
American Refining Company	2	135
Apex Oil Company	2	370
Badger Oil Company	1	50
R. G. Barnum et al	1	...
Canadian River Oil Co.	4	400
Canyon Oil Company	3	3,000
Center Dome Oil Company	1	...
Centerfield Oil Company	1	...
Cline & Douglas Oil Co.	1	10
Coble-Whittenburg Oil Co.	3	710
Cockrell-McIlroy Oil Co.	2	860
Currie Bros. & J. R. Phillips	1	1,075
Delmar Oil Company	1	75
Derby Oil Company	3	300
Devonian Oil Company	3	685
Dixon Creek Oil Company	21	9,075
Double Five Oil Company	1	65
E. J. Dunnigan et al	1	1,000
J. B. Dunnigan et al	2	310
Drysdale Oil Company	1	...
Echo Oil Company	3	640
Empire Gas & Fuel Company	4	850
Fly-Blackburn Oil Company	2	220
Gates Oil Company	4	370
Golding-Phillips Oil Co.	1	...
Gulf Production Company	15	4,345
Gulf-Cline & Panhandle Ref. Co.	28	5,260
W. Scott Heywood et al	2	100
W. H. Holmes et al	1	180
Holmes-Currie & McKnight	2	205
J. K. Hughes Dev. Co.	11	1,630
Hutchinson County Oil Co.	1	10
Japhet Production Co.	2	470
J. H. Lenix et al	1	20
Lucky Ten Oil Company	1	650
Marland Oil Company	25	16,485
S. D. & W. W. McIlroy	3	730
McIlroy Oil Company	3	375
McIroy-Herring Oil Co.	4	600
McKinney-Bayer Oil Corp.	1	...
McMan Oil & Gas Company	10	9,870
J. H. Middleton et al	3	85
Mid-West Explo. Co. et al	5	585
Murchison-Fain Oil Company	1	300
Newby Oil Company	1	55
New Domain Oil & Gas Co.	3	125
Pattison-Lenix Oil Co.	1	425
J. R. Phillips et al	1	25
J. R. Phillips-Heywood	1	1,320
Phillips Petroleum Co. et al	51	19,650
Prairie O. & G. Co. and Phillips Pet. Co.	15	3,175
Relief Oil Company	2	575
Henry Riley & W. H. Holmes	1	500
Roxana Petroleum Corp.	7	1,055
Ryan Con. Pet. Corp. (Morton)	3	340
Shamrock Pet. Co. et al	1	200
Skelly Oil Company	12	6,215
Skiatex Oil Company	4	1,675
J. L. Smith et al	1	70
Smith-Bynum et al	2	200
Spring Creek Oil Company	3	900
Summit Oil Company	2	420
Sun Burst Oil Company	2	2,800
Sunny Jim Oil Company	5	600
Tehoma Oil & Refining Co.	1	15
Travelers Oil Company	2	710
Triangle Oil Company	1	1,020
J. D. Ward et al	2	125
Westex Oil Company	7	1,965
White Eagle O. & R. Co. et al	11	1,875
Jim Whittington et al	1	...
Totals	331	108,770
Potter County—		
Amarillo Oil Company	1	35
Wheeler County—		
Gibson Oil Corp. et al	2	155
Mid-West Exploration Co.	3	...
Texhoma Oil & Refining Co.	1	80
Totals	6	235
Grand totals for past week	396	116,145
Grand totals for previous week	348	116,675

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ALL SUPPLY HOUSES

The C.C.M.O. "Olinda" Well No. 96, the deepest oil well in the world—depth 8,034 feet, August 27, 1926—cored with the Phipps Core Bit. Reading from left to right: E. E. Ruggels, Tool Pusher; M. J. Foster, Helper; A. D. Spear, Driller; Ray Walters, Helper; O. F. Culwell, Derrick Man; R. W. Bennett, Tool Dresser; (Tom Harryman, Supt., not shown). The last core was taken with the Phipps Core Bit at 8,000 feet, the deepest core ever taken. Note the Foster & Smith Wire Line Control used on this well, as shown in photograph.

wise as far removed from railroad facilities, the Panhandle operators have been making great headway under such a handicap. However, the spur line being built by the Santa Fe Railroad from Panhandle to the heart of the Hutchinson County field should be ready for tonnage before the close of the present month, and a big transportation expense will be eliminated, as thousands of trucks have been working night and day to supply the field men with equipment.

More than one half of the current field operations in the Texas Panhandle district are being done by 10 major and independent companies, with the Phillips Petroleum Company et al leading. The Phillips Petroleum Company is operating individually owned properties, besides being associated with the Gibson Oil Corporation, Pulaski Oil Company, George Williams and also with Prairie Oil & Gas Company. However, the Prairie Oil & Gas Company is in charge of the development of the joint holdings, while Phillips is in charge of all other holdings involved in partnership. The Phillips Petroleum Company et al were credited with having four completions; 54 active tests; three shut down; 32 derricks and rigs; and 12 locations, making a total of 105 operations at the close of the week. The Gulf Production Company holds second place with a total of 38 operations, besides 15 others held jointly with Walter Cline and the Panhandle Refining Company.

Companies engaged in development work on a large scale in the Texas Panhandle district are listed below, with the total number of operations for each company at the close of last week itemized:

Company—	Completions	Active Tests	Shut Down	Rigs & Derricks	Locations	Totals
Dixon Creek Oil Company	..	4	6	1	..	11
Empire Gas & Fuel Company	..	14	1	4	..	19
Gulf Production Company	1	33	..	4	..	38
Gulf-Cline & Panhandle	2	10	..	3	..	15
J. K. Hughes Development Co.	..	6	..	4	..	10
Humble Oil & Refining Co.	..	12	1	..	..	13
Magnolia Petroleum Company	..	11	..	5	3	19
Marland Oil Company	2	30	1	2	1	36
McMan Oil & Gas Company	4	12	..	2	1	19
Phillips Petroleum Co. et al	4	54	3	32	12	105
Prairie Oil & Gas Company	..	3	1	1	5	10
Prairie & Phillips Pet. Co.	2	16	..	10	1	29
Shamrock Pet. & Prairie	..	6	4	3	..	13
Skelly Oil Company	1	5	1	7	..	14
White Eagle Oil & Ref. Co. et al	..	7	..	2	..	9
Wilcox Oil & Gas Company	1	10	..	..	..	11
Totals	17	233	18	80	23	371
Totals for all others	8	140	55	61	25	289
Grand totals for district	25	373	73	141	48	660

Bureau of Mines Safety Car Making Rounds In Oklahoma

Tulsa, Okla.—The First Aid car of the Bureau of Mines is now covering the oil fields of Oklahoma and the men in charge will conduct classes in first aid and safety work, in cooperation with representatives of the oil companies.

August 28 the car completed a 12-day stop at Ponca City, moving next to the Garber field, where it will remain until September 4. Other dates include: Tonkawa field, September 6 to 11; Burbank field, September 13 to 18; Barnsdall, September 20 to 25; Avant, September 27 to October 2; Tulsa, October 11 to 16.

Upon the completion of this schedule the car will visit Yale, Cushing, Drumright, Kiefer, Okmulgee, Boynton, Cromwell and Oklahoma City. Dates for these stops will be announced later.

Work of the car is in cooperation with the Bartlesville station of the Bureau of Mines. The following information has been given in connection with the work of the men in charge of the car:

The bureau of mines will gladly arrange for training in any other places in Oklahoma if the Bartlesville station is notified at once.

Early in the present year a letter in regard to the itinerary of Car 6 was addressed by the Bartlesville station to the petroleum industry of the Mid-Continent. This letter pointed out that advice would be given if revisions in the car's schedule, to meet changed conditions, were made from time to time, as the training progressed. In general, the original schedule has been followed, but additional training at various places has been requested and given. Where changes have occurred, the bureau has endeavored to advise the industry in ample time.

Messrs. P. E. Keegan and Alex P. Weir, the personnel of Car 6, began the present oil field itinerary at Coffeyville, Kan., on May 3. Since that time, they have given training at 13 different places in Kansas. During the 15 weeks ending August 14, 311 men have completed the course. These men represent 29 companies. In addition, Mr. J. B. Hynal gave training to large classes at Muskogee and Ardmore, Okla. Mr. Hynal, who was to have given further training at points in southern Oklahoma, has been called away temporarily. Upon his return he will continue his interrupted itinerary.

Superintendents and others are urged to visit Mr. Keegan on Car 6 upon its arrival at places of training and make definite arrangements with him regarding the most central place for holding classes and for periods of training to suit the greatest convenience of the men. In case a longer time than specified is needed at any of the places of training, Mr. Keegan will be glad to make the necessary arrangements.

Charles E. Bowles has joined the staff of Foster-Hamilton-Ryan, Inc., at Tulsa. The concern is engaged in maintaining a complete advertising service, catering especially to the oil industry.

Mr. Bowles will devote the greater part of his efforts toward research in the several business fields, in which the concern will prepare advertising campaigns.

While the past six years of his work has been within the oil industry, his previous experience was in both merchandising and manufacturing in several cities of the Middle West. He has made business analyses within the retail merchandising field and done fiscal work in both retail and manufacturing fields, as well as for oil companies.

He is the author of "The Petroleum Industry." Other work in the oil industry includes a period as assistant secretary of the Mid-Continent Oil & Gas Association as well as that of petroleum analyst for The Oil & Gas Journal.

Build Gas Line

Casper, Wyo.—An eight and 10-inch gas line will be laid from the Mahoney (Wyoming) gas field to Parco by the Prairie Oil & Gas Company which controls the Producers & Refiners Corporation, which in turn will be the recipient of the gas. The Parco refinery has been using gas for some time but has not had the steady supply it has needed. The Producers & Refiners interests have more than enough gas adjacent to their refinery but the Midwest Refining Company has a contract for its delivery to Casper. The Parco refinery was built after the contract was made. The total length of the line will be 31 miles. The open flow of all wells on the Mahoney dome is not unusually large, but it is expected that additional development will bring up the open flow several hundred million cubic feet.

Smith Welding Bulletin

Welding and cutting equipment manufactured by Smith Welding Equipment Corporation of Minneapolis, Minnesota, is illustrated and described in a folder now being distributed to the trade.

Copies may be had upon inquiry to the manufacturer.

Figure it out for yourself

1000 ft. of Hole

—With the pulling of long strings of pipe every time bits needed changing or cores were taken, with the old style drilling equipment, required TWELVE DAYS in the Somerset Field.

—But the Standard Collapsible Rotary Drill and Core Barrel working INSIDE the drill stem, with case-hardened cutters ALWAYS on bottom, accomplishes the same results in FOUR AND A HALF DAYS.

—The SAVING in time, labor and wear and tear on machinery MORE than pays for this drill in a single well of average depth.

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W.T. HILTPOLD——T.P. HEWITT

SALES AGENTS

Derrick in place at the new location

Skid Steel Derrick 600 Feet Without Difficulty

Electra, Texas.—An unusual moving feat was accomplished here recently when the Magnolia Petroleum Company skidded a rig 600 feet to a new location. On this job it was necessary to cross a creek bed and go up a fairly steep incline.

In crossing the creek, at one time, one of the derrick corners was five or six inches above any support, yet skidding was accomplished without difficulty.

The derrick was an "Ideco" steel one, and an examination showed that it was in as good condition after skidding as before. Although the strain was severe and unusual, the derrick kept its shape and was in true alignment when put on the new location.

The "Ideco" derrick as it was being moved up the hill

New Mexico Well Making 400 Barrels Daily

Casper, Wyo.—Maljamar Oil & Gas Company has tubed its No. 1 well, section 21-17-32, Lea County, New Mexico, and production increased to almost 400 barrels daily. The well is making 180 barrels of water with the oil. A check-up of the sand practically proves that the water is coming from the bottom of the producing horizon. An effort will be made to plug off the water. The company will drill several more tests on the structure and is now busy validating in various parts of the new field.

Eddy County, New Mexico, the most active part of the state, has not yielded what the producers expected of it. The Artesia field has had many small producers added to it but the extensions have been keenly disappointing in many respects. More tests probably are now under way in the state than ever before but Eddy County activity has failed to keep on a par with other districts. The oil is of such fine quality that it is profitable even in small wells.

The Skelly Oil Company's test in western Lea County has not paralleled the Maljamar's producer 25 miles to the east, although the first part of the log compared favorably with it. Several important formations encountered in the Maljamar well failed to appear in the Skelly test. After a series of breaks, the Skelly well has entered more encouraging formations. The well is located about midway between the Artesia field and the Maljamar well. Like other New Mexico oil all showings have been of a very high grade crude.

California Petroleum Buys Montana Properties

Casper, Wyo.—Eclipsing any deal ever made in Montana oil circles, the California Petroleum Company has acquired the Kevin-Sunburst properties of O'Neil Brothers, the Northern Star Oil & Refining Company and the International Refining Company for a consideration said to be in excess of $5,000,000. The purchasers acquired practically outright about 2000 barrels of daily production in the Kevin-Sunburst field, refineries with a combined capacity of more than 10,000 barrels daily and some production and valuable acreage in the Cat Creek field. The California Petroleum Company has made L. B. O'Neil a vice-president and director. The O'Neil brothers had a very modest start in Montana oil circles, having first bought a small tract in the Cat Creek field. They were pioneers in the Kevin-Sunburst field. They became interested in the refining end of the industry and built up a large market for Sunburst crude. Eastern interests have been slow to show enthusiasm for Montana fields, while the largest western companies are in a spirited race for the best acreage in the state.

Since the first big deal in the field, rumors of all sorts are current. It has been positively established that practically every large operator in the field has been approached by prospective buyers, and in many cases offers of outright purchases have been made. The discovery of light oil in the deeper sands in the field has been of especial interest to the larger corporations seeking a permanent supply of crude.

E. J. NORDSTRUM

who recently became associated with the Taubman Supply Corporation with headquarters at Tulsa, Oklahoma

Kevin-Sunburst operators are elated over the possibility of additional outlets for their crude. The Ferdig Oil Company interests will immediately commence the erection of a large refinery near Minneapolis, according to S. C. Ferdig, president of the corporation. Duluth is in a lively race for the location of the refinery. The Great Northern railroad has offered a site in Duluth, and has offered to cooperate in many other ways. A much lower freight rate is expected if enough tonnage is assured. Already there is a much keener demand for crude. Some independent refiners have contracted for oil at a bonus of as high as 35 cents above the posted field price. Realizing the possible shortage of crude since the larger corporations have entered the field, the smaller refining interests have begun to tie up oil at fairly attractive prices. The same conditions once prevailed in the Salt Creek field, where independent interests are now having trouble in meeting their requirements.

Montana Test

Casper, Wyo.—Ohio Oil Company will drill another test on the Roscoe dome, Carbon County, Montana. The company is now drilling on its first test and recently tapped a 35,000,000 cubic foot gas well. The flow of gas diminished rapidly and dead oil was in evidence.

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The Insignia of Higher Efficiency and Lower Costs In Oil Well Pumping.

For Twenty years D & B has made an intensive, scientific study of pumping oil, developing a variety of special appliances which comprehend every pumping operation, and are unsurpassed in efficiency, economy and reliability in service. In every active field in the world these appliances are setting new standards of superior performance and low cost operation. No well is completely equipped, nor can be one hundred per cent efficient, without them.

A few of these products are shown here. All are illustrated and fully described in the new D & B catalog, which should be a part of every oil man's equipment. Your copy will be mailed promptly on request.

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Alaskan Wildcatting Needs Plenty of Capital

Washington, D. C.—Only firms with very extensive capital will find it possible to operate in the Alaskan oil fields, it is warned by the Geological Survey in a report just made public. There are large quantities of oil to be taken out of those fields but, it is pointed out, while "the stakes to be played for are high, the risks are grave and the expense of development enormous."

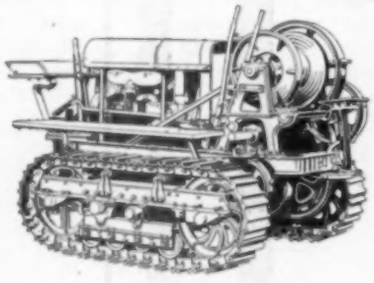
The heaviest drawbacks to Alaskan development are the inaccessibility of the fields and the lack of transportation facilities for getting the oil to markets. "The region," it is declared in the report, "is most assuredly not one where anybody can get rich in oil without enormous expenditures of capital for development, and no one should risk funds whose loss will seriously embarrass him, because development of oil in this region is distinctly a wildcat undertaking of the most spectacular character, and at the same time the development can be successful only if undertaken on a large scale."

Approximately two years and $140,000 have been expended by the government in making surveys in Alaska, ordered by President Harding in 1923. Definite assurance has been found of the presence of oil, but the quantity available has not been determined, nor has the true nature of the oil been discovered by examination of samples taken from the surface, from which many of the lighter, more volatile parts had probably escaped, although, apparently, the oil has a naphthalene base and is rather low in sulphur, appearing to be comparable with the oil obtained in the Blue Ridge field of Texas.

The studies of geologists and other experts indicate that vessels could not be successfully used in the movement of oil produced in Alaska and that pipe lines reaching a length probably of 1000 miles would have to be built from the fields to an ice-free harbor, through a wilderness in which even trails are lacking, in parts of which there is not enough timber even to build shelters for the workmen, and with conditions of extreme cold to meet, both in construction and in operation. A railroad through the region would encounter some of the same difficulties, as well as others peculiar to railroads.

"As a matter of public policy," the report asserts, "if this field is not developed by the government itself, it seems little short of criminal to impose on private enterprises that may attempt development laws and restrictions that are entirely appropriate for oil fields in Oklahoma or California.

"In order that the uncertainties, the risks, and the costs in the two regions should be at all comparable it is probably on exaggeration to say that the prize played for in northern Alaska should be at least 10 times that required under the same conditions in the States. In fact, it would probably be sound public policy, before granting prospecting permits or leases for oil on the unappropriated public lands in northern Alaska, to require an acceptable showing of adequate financial backing and of sound methods of marketing the product."



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Address

Henry E. Bullock,

1801 Diversey Parkway, Chicago, Illinois.

Vacuum Well at Lockport Makes 10,000 Barrels

Houston, Texas.—Vacuum Oil Company, drilling on the Vacuum-Gulf land at Lockport, Louisiana, brought in the Bordages No. 3 September 1, for an estimated flow of 10,000 barrels, the largest producer yet opened in this field, and extended the productive area 300 feet to the west. Shortly following completion of the well, the appearance of sand in the production forced operators to pinch the well in to 1600 barrels with a one-half-inch choke. early this week the well was still making about this amount, varying slightly from day to day. The total depth is 2784 feet, and gravity of the oil is 24.2 Baume. Production from Bordages No. 3 brought Lockport's daily average to more than 5200 barrels.

Other Vacuum wells at Lockport drilling at the close of the past week totaled six with the Miller 8 fishing, the No. 10 drilling at 5275 feet, Farquhar No. 1, a workover, drilling at 3387 feet, LockMoore No. 4 drilling at 5770 feet, the Bayou D'Inde No. 1 drilling at 2300 feet and the No. 2 a location.

F. F. Hintze of Denver, Colorado, last week spudded in the first of four tests to be drilled on a 2500 acre block in Choupique, near the leases of the Pure Oil Company and not far from the Lockport field. The well is the Charles Genckenstein No. 1.

Arizona Developments Not Up to Expectations

Casper, Wyo.—Development in Arizona has been much slower this year than was predicted earlier in the spring. Unlike other showings of oil in the state, the test near Wilcox has encountered a heavy black oil. No definite horizon has been established but geologists predict a thick possible oil bearing sand at approximately 2200 feet. The well is now drilling below 1850 feet. The rig which recently burned near Bowie will be replaced. Not more than six tests are being drilled in the state.

Success seems about to smile upon the Producers & Refiners Corporation after a long and tedious drilling campaign in the Clay Basin (Utah) field. Apparently no definite sand has been found, but considerable oil has been encountered above the Dakota sands at 5400 feet. Enough oil to fill the hole 500 feet was in evidence, according to reports received. The present test is the second drilled on the structure, which is located in the extreme northeastern part of the state.

Water in Moffat Test

Casper, Wyo.—The Texas Production Company did not meet with success in deepening its Knowlton No. 1 test on the Moffat (Colorado) dome. The well was deepened about 15 feet. A flow of 300 barrels of oil and the same amount of water was the result. The oil flow decreased to 100 barrels while the water slightly increased. A decision has been reached to carry the test down to lower formations. This well is the first to give the operators trouble. It really was a test of the outer fringe of the field and the results are not especially disappointing. Other wells on the structure are producing satisfactorily.

Oil Strike in Nebraska

Casper, Wyo.—Enthusiasm is running high in Western Nebraska as the result of a small oil strike near Beaver City by a local syndicate. A small commercial well would have been possible at a depth of 2575 feet, but the operators were eager to test the lower formations. The State of Nebraska has offered a large cash bonus for the first commercial oil well within its borders. The well was located by a mechanical instrument. A good showing of heavy oil was found at 2780 feet. About 40 tests have been drilled in Nebraska but commercial production has never been found.

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STOCKS IN ALL ACTIVE FIELDS

Bradford Steel Rig Equipment may be obtained from branches maintained in all principal active fields. For satisfaction, we suggest you specify Bradford on your next requisition.

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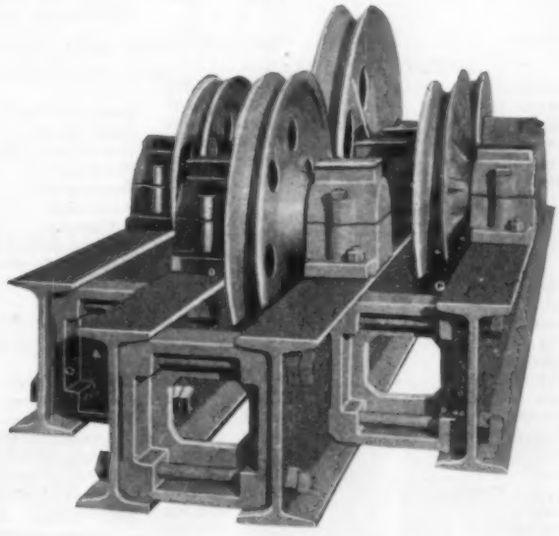


AVERAGE DAILY PRODUCTION FOR U.S.

United States Daily Average Production by Weeks

Figures below are taken from the complete revised estimates of the AMERICAN PETROLEUM INSTITUTE except for the current week, which are advance estimates issued by the A. P. I. and are subject to revision:

Week Ending	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Arkansas	Eastern States	Rocky Mountain	California	United States Total
February	450,037	101,937	245,989	91,550	45,090	169,676	99,000	98,412	605,250	1,909,637
March	454,762	103,300	260,262	92,712	48,787	165,312	97,625	102,325	604,500	1,929,562
April	467,175	101,825	263,612	88,812	50,562	169,824	100,875	106,675	600,000	1,947,387
May	463,750	105,600	277,700	94,550	58,150	175,430	105,700	112,300	602,720	1,995,990
June	**456,450**	**107,637**	**302,187**	**89,912**	**60,412**	**167,887**	**106,250**	**112,925**	**606,925**	**2,013,187**
July 3	458,450	109,350	315,450	101,050	60,300	163,650	105,000	114,800	610,400	2,038,450
July 10	453,200	109,500	324,450	112,100	57,550	162,450	104,500	97,100	611,800	2,032,650
July 17	454,200	109,650	331,400	109,050	56,100	162,400	104,500	110,200	616,900	2,054,400
July 24	**457,750**	**111,150**	**343,050**	**113,650**	**57,200**	**160,750**	**104,000**	**108,700**	**614,700**	**2,070,950**
July 31	461,000	111,950	355,450	137,950	56,150	160,100	105,500	111,900	615,900	2,115,900
August 7	459,450	110,450	364,850	154,750	56,800	160,150	107,000	109,700	618,100	2,141,250
August 14	464,900	111,050	375,150	167,500	56,600	156,850	108,500	110,900	610,600	2,162,050
August 21	467,900	112,650	389,500	159,200	56,850	156,700	109,000	112,100	606,100	2,170,500
August 28	468,300	112,250	396,700	163,550	56,900	155,800	109,000	110,250	604,100	2,176,850
Sept. 4	467,100	112,950	450,000	177,500	56,800	156,950	109,500	109,500	601,000	2,196,300
Increase over past week	.....	700	8,300	13,950	.....	1,150	500	.....	.....	19,450
Decrease over past week	1,200	.....	.....	.....	100	.....	.....	750	3,100	.....

Texas

NORTH TEXAS

	Sept. 4	August 28
Burkburnett	11,200	11,350
Electra	16,000	16,200
Iowa Park and K-M-A	4 400	4,400
Wilbarger	14,000	14,200
Hutchinson County	108,500	105,950
Panhandle Misc.	7,550	7,650
Petrolia	550	500
Archer County	30,500	30,900
Others	4,600	4,600
Totals	197,300	195,750

EAST CENTRAL TEXAS

Mexia	11,700	11,950
Currie	800	800
Richland	1,500	1,500
Corsicana-Powell	26,700	26,950
Wortham	6,900	7,000
Nigger Creek	19,200	14,800
Totals	66,800	63,000

WEST CENTRAL TEXAS

Stephens County	11,300	11,250
Eastland County	5 750	5,750
Desdemona	1,750	1,750
Young County	6,300	6,450
Palo Pinto County	450	450
Callahan County	4,200	4,200
Shackelford County	8,900	8,750
Reagan County	28,450	28,250
Brown County	9,800	9,850
Crane-Upton Counties	8 950	6,850
Others	8,350	8,250
Totals	94,200	91,800

SOUTHWEST TEXAS

Luling	22,000	21,800
Laredo District	18,000	17,600
Somerset	2,000	2,000
Lytton Springs	4,050	4,200
Piedras Pintas	150	150
Others	500	500
Totals	46 700	46,150
Total Tex. outside Gulf Coast	405,000	396,700

GULF COAST

Goose Creek	10,100	10,350
Hull	16,500	14,800
Saratoga	1,350	1,350
Blue Ridge	1,500	1,300
Damon Mound	850	850
Batson	1,350	1,350
West Columbia	9,200	9,050
Humble	4,000	4,000
Pierce Junction	2,300	2,200
Sour Lake	5,350	5,200
Spindletop	93,200	81,550
Orange County	8,250	7,750
Edgerly	1,000	1,000
Evangeline	1,100	1,100
Vinton	6,350	6,350
Lockport	4,000	4,050
South Liberty	4,600	4,850
Big Creek	1,850	2,000
Boling	1,700	1,750
Others	2,950	2,700
Totals	177,500	163,550

Oklahoma

	Sept. 4	August 28
North Braman	10.900	12,300
South Braman	8,050	8,650
Blackwell	4,250	4,250
Hubbard	2,100	2,500
Thomas	1,850	2,400
Tonkawa	39,700	37,250
Garber	31,400	33,400
Burbank	48 600	49,200
Osage (Outside Burbank)	34,300	34,200
Watchorn	2,850	2,800
Cushing	21,550	21,600
Yale Jennings	12,850	13,250
Davenport	6,700	6,900
Bristow-Slick	27,850	28,000
North Okmulgee	17,400	17,300
Lyons-Deaner	3,950	3,950
Stroud	2,000	2,050
Cromwell	15,900	16,200
Papoose	10,250	10,150
Wewoka	32,350	31,350
Duncan District	7,500	7,450
Graham	10,000	9,950
Fox	5,800	5,800
Healdton	14,850	14,900
Hewitt	11,550	11,500
Seminole	13,950	13,900
Others	66,950	67,100
Totals	467,100	468,300

California

Santa Fe Springs	47,500	48,000
Long Beach	98,000	99,000
Huntington Beach	45,500	45,500
Torrance	28,000	28,000
Dominguez	21,000	21,500
Rosecrans	14,000	14,000
Inglewood	45,000	45,000
Midway-Sunset	94,500	94,500
Ventura Avenue	47,500	48,600
Others	160,000	160,000
Totals	601,000	604,100

Kansas

Florence-Covert	1,950	2,000
Peabody-Ebling	4,100	4,100
Eldorado-Towanda	13,900	13,850
Augusta-Fox Bush	4,850	4,850
Rainbow Bend	4,350	4,050
Russell	5,500	5,200
Greenwood County	44,800	45,100
Others	33,500	33,100
Totals	112,950	112,250

North Louisiana

	Sept. 4	August 28
Homer	5,500	5,550
Haynesville	9,500	9,500
Caddo Light	9,850	10,000
Caddo Heavy	3,000	2,850
Desoto-Red River	4,150	4,200
Elm Grove	550	550
Bellevue	2,000	2,000
Cotton Valley	7,350	7,950
Urania	14,900	14,300
Totals	56,800	56,900

Arkansas

El Dorado	7,000	7,000
Smackover Light	14,900	14,950
Smackover Heavy	122,600	121,150
Stephens	1,850	1,850
Nevada	2,000	2,000
Lisbon	8,600	8,850
Totals	156,950	155,800

Mountain States

WYOMING

Salt Creek	46,700	48,400
Grass Creek	3,100	3,100
Elk Basin	850	800
Big Muddy	3 300	3,300
Lost Soldier	5,110	5,400
Rock River	2,700	2,600
Teapot Dome	1,300	1,050
Others	5,250	4,900
Totals	68,350	69,550

MONTANA

Cat Creek	2,700	2,550
Sunburst	25,000	25,000
Others	200	200
Totals	27,900	27,750

COLORADO

Moffats (Craig)	3,300	3,150
Fort Collins	3,800	3,850
Others	900	1,000
Others	900	0,001
Totals	8,500	8,500

NEW MEXICO

Artesia	3,000	3,000
Hogback	700	700
Rattlesnake	1,050	750
Totals	4,750	4,450
Total Mountain States	109,500	110,250

EASTERN STATES

(Including Ill., Ind., Ohio, Pa., W. Va., Ky., and N. Y.)	109,500	109,000

PRODUCTION SUMMARY

East of Rockies	1,485,800	1,462,500
United States	2,196,300	2,176,850

"Better Be Safe Than Sorry"

SPEED AND SAFETY

SPEED—because one thrust takes hold—because there is no slipping—because a pressure on latch lets go.
SAFETY—because few, large parts render this the strongest tong made—because of the firm, non-slip grip—because it is mechanically dependable in every detail.

A perfected Tool Joint Tong, offered by the company that developed the Tool Joint.

THE GUIBERSON CORPORATION

Box 1106, Dallas, Texas

CALIFORNIA BRANCH: 1506 Santa Fe Ave., Los Angeles
402 W. First St., TULSA — 318 First Nat'l Bank Bldg., HOUSTON — 506 Trust Bldg., NEWARK, O.

GUIBERSON

BETTER BE SAFE THAN SORRY

Say you saw it in The OIL WEEKLY

CRUDE OIL PRICE QUOTATIONS

Current Postings

EASTERN STATES

	Sept. 8 1926
New York Transit	3.40
Bradford District	3.40
National Transit	3.30
Southwest	3.30
Eureka	3.25
Macksburg	3.05
Gaines	2.85
Somerset medium	2.50
Somerset light	2.65
Cabell	2.40
Ragland	1.25
Corning	2.55
Keister	2.30

CENTRAL STATES

Illinois	2.37
Indiana	2.25
Lima	2.48
Plymouth	1.90
Princeton	2.37
Waterloo	1.35
Wooster	2.55

WESTERN KENTUCKY

Posted by Indian Refining Company for crude from Allen, Warren, Franklin, Davies, Barren, Cumberland and Monroe Counties

36 and above	2.05

MID-CONTINENT

	Prairie Sinclair* Texas Gulf	Magnolia
Below 28	...	1.30
28 to 28.9 gravity	1.65	1.65
29 to 29.9 gravity	1.73	1.73
30 to 30.9 gravity	1.81	1.81
31 to 31.9 gravity	1.89	1.89
32 to 32.9 gravity	1.97	1.97
33 to 33.9 gravity	2.05	2.05
34 to 34.9 gravity	2.13	2.13
35 to 35.9 gravity	2.21	2.21
36 to 36.9 gravity	2.29	2.29
37 to 37.9 gravity	2.37	2.37
38 to 38.9 gravity	2.45	2.45
39 to 39.9 gravity	2.53	2.53
40 to 40.9 gravity	2.61	2.61
41 to 41.9 gravity	2.69	2.69
42 to 42.9 gravity	2.77	2.77
43 to 43.9 gravity	2.85	2.85
44 to 44.9 gravity	2.93	2.93
45 to 45.9 gravity	3.01	3.01
46 to 46.9 gravity	3.09	3.09
47 to 47.9 gravity	3.17	3.17
48 to 48.9 gravity	3.25	3.25
49 to 49.9 gravity	3.33	3.33
50 to 50.9 gravity	3.41	3.41
51 to 51.9 gravity	3.49	3.49
52 and above	3.57	3.57

NORTH AND CENTRAL TEXAS

Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran, Somerset, Big Lake and Nocona crude

	Somerset (Grayburg)	Humble O. & R. Co. * Texas Co.
28 to 28.9 gravity	1.15	1.65
29 to 29.9 gravity	1.25	1.73
30 to 30.9 gravity	1.31	1.81
31 to 31.9 gravity	1.39	1.89
32 to 32.9 gravity	1.47	1.97
33 to 33.9 gravity	1.55	2.05
34 to 34.9 gravity	1.63	2.13
35 to 35.9 gravity	1.71	2.21
36 to 36.9 gravity	1.79	2.29
37 to 37.9 gravity	1.87	2.37
38 to 38.9 gravity	1.95	2.45
39 to 39.9 gravity	2.01	2.53
40 to 40.9 gravity	2.07	2.61
41 to 41.9 gravity	2.13	2.69
42 to 42.9 gravity	2.19	2.77
43 to 43.9 gravity	2.25	2.85
44 to 44.9 gravity	2.31	2.93
45 to 45.9 gravity	2.31	3.01
46 to 46.9 gravity	2.31	3.09
47 to 47.9 gravity	2.31	3.17
48 to 48.9 gravity	2.31	3.25
49 to 49.9 gravity	2.31	3.33
50 to 50.9 gravity	2.31	3.41
51 to 51.9 gravity	2.31	3.49
52 and above	2.31	3.57

Corsicana Heavy $1.25 per barrel, posted by Magnolia.

*Until further notice, Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes purchased by the Humble Oil and Refining Company, of a gravity lower than 28 degrees will be paid for with a corresponding decrease of eight (8) cents per barrel for each lower degree of gravity.

SOUTH TEXAS

	Sept. 8 1926
Mirando	$1.00

Posted by Humble Oil and Refining Company.)

	Sept. 8 1926
Mirando	1.25

(Posted by Texpata Pipe Line Company and Magnolia Petroleum Company.)

GULF COAST

All fields except Spindletop

Grade "A" all companies	1.40
Grade "B"	1.50
Gulf Coast Light Oil, Below 25	1.40
25 to 25.9	1.45
26 to 26.9	1.50
27 to 27.9	1.55
28 to 28.9	1.60
29 to 29.9	1.65
30 to 30.9	1.70
31 to 31.9	1.75
32 to 32.9	1.80
33 to 33.9	1.85
34 to 34.9	1.90
35 to 35.9	1.95
36 to 36.9	2.10
37 to 37.9	2.15
38 to 38.9	2.20
39 to 39.9	2.25
40 and above	2.30

*Humble Oil and Refining Company's postings on Gulf Coast Light stop at 35 to 35.9. Its price on all crude above 35 is $1.95 per barrel.

SPINDLETOP LIGHT

Posted by Gulf Pipe Line Company, Humble Oil and Refining Company, Magnolia and Texas Company. Other companies buying Spindletop crude on regular Gulf Coast basis as shown above.

Below 25 gravity	*1.25
25 to 25.9	1.30
26 to 26.9	1.35
27 to 27.9	1.40
28 to 28.9	1.45
29 to 29.9	1.50
30 to 30.9	1.55
31 to 31.9	1.60

*The Texas Company does not post prices on this grade.

SPINDLETOP HEAVY

The following prices are posted only by the Gulf and Magnolia.

Grade "A"	1.25
Grade "B"	1.15

LULING

Based on Contract	1.30

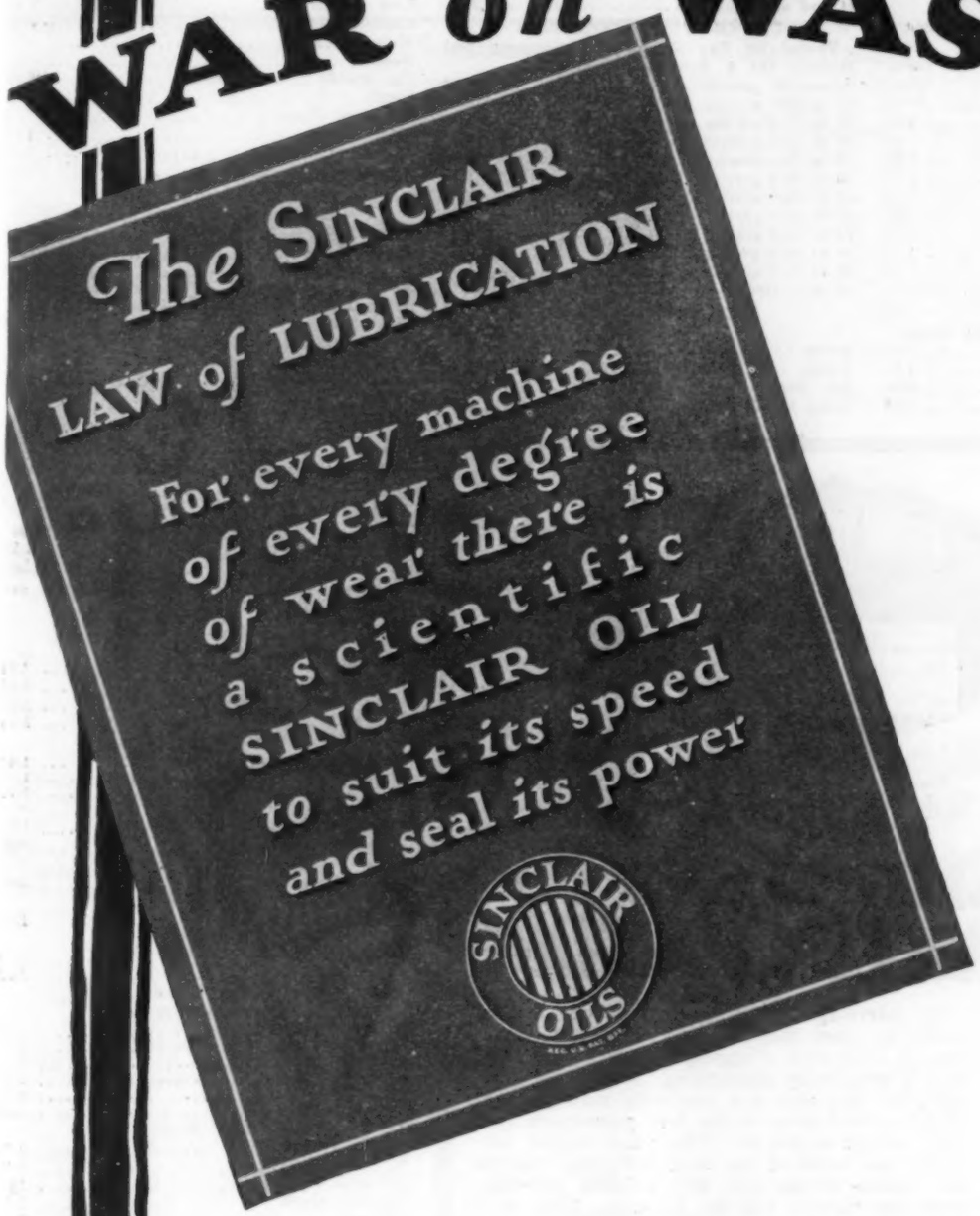
(Continued on page 64.)

California Crude Oil Prices at the Well

Following are the current prices offered by Standard Oil Company for crude oil at the well: (Price per barrel of 42 gallons in fields indicated)

Gravity (degrees)	Signal Hill	Huntington Beach	Inglewood	Olinda-Brea Canon	Rosecrans Dominguez	Torrance	Richfield	Whittier	La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall	Midway-Sunset Elk Hills	McKittrick	Lost Hills	Coalinga	Kern River	Wheeler Ridge
14-14.9	$ .85	$ .85	$ .85	$ .85	$ ..	$ .85	$ .85	$ .85	$ .85	$ .85	$ .85	$ ..	$ .75	$ .75	$ .75	$ .75	$ .75	$ .75	$ .75
15-15.9	.87	.87	.87	.87	..	.87	.87	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75	.75
16-16.9	.90	.90	.90	.90	..	.90	.90	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75	.75
17-17.9	.94	.94	.94	.94	..	.94	.94	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75	.75
18-18.9	.98	.98	.98	.98	..	.98	.98	.86	.86	.86	.86	..	.75	.75	.75	.75	.75	.75	.75
19-19.9	1.04	1.04	1.04	1.04	..	1.04	1.04	.87	.87	.87	.87	..	.75	.75	.75	.75	.75	.75	.75
20-20.9	1.10	1.10	1.10	1.10	..	1.10	1.10	.89	.89	.89	.90	..	..	.82	..	.82	.79	..	.78
21-21.9	1.16	1.16	1.16	1.16	..	1.16	1.16	.91	.91	.91	.98	..	..	.90	..	.90	.86	..	.81
22-22.9	1.22	1.22	1.22	1.22	..	1.22	1.22	.94	.94	.94	1.06	..	..	1.00	..	1.00	.93	..	.85
23-23.9	1.28	1.28	1.28	1.28	..	1.28	1.28	..	..	.97	1.14	..	..	1.11	..	1.11	1.00	..	.89
24-24.9	1.34	1.34	1.34	1.34	1.34	1.34	1.34	..	..	1.01	1.22	1.02	..	1.22	..	1.22	1.07	..	.93
25-25.9	1.40	1.40	1.40	1.40	1.40	1.40	1.40	..	..	1.05	1.30	1.08	..	1.33	..	1.33	1.14	..	.97
26-26.9	1.46	1.46	1.46	1.46	1.46	1.46	1.46	..	..	1.09	1.38	1.16	..	1.44	..	1.44	1.21	..	1.01
27-27.9	1.52	1.52	1.52	1.52	1.52	1.52	1.52	..	..	1.13	1.46	1.24	..	1.55	..	1.55	1.28	..	1.05
28-28.9	1.58	1.58	1.58	1.58	1.58	1.58	1.58	..	..	1.17	1.54	1.32	..	1.66	..	1.66	1.35	..	..
29-29.9	1.64	1.64	..	1.64	1.64	..	1.64	..	..	1.21	1.62	1.40	..	1.77	..	1.77	1.42	..	..
30-30.9	1.70	1.70	..	1.70	1.70	..	1.70	..	..	1.25	1.70	1.48	..	1.88	..	1.88	1.49	..	..
31-31.9	1.76	1.76	..	..	1.76	..	..	..	..	..	..	1.60	..	1.99	..	1.99	1.56	..	..
32-32.9	1.84	1.84	..	..	1.84	..	..	..	..	..	..	1.72	..	2.10	..	2.10	1.63	..	..
33-33.9	..	..	..	..	1.92	..	..	..	..	..	..	1.84	..	2.21	..	2.21	1.70	..	..
34-34.9	..	..	..	..	2.00	..	..	..	..	..	..	1.96	..	..	..	2.32	1.77	..	..
35-35.9	..	..	..	..	2.08	..	..	..	..	..	..	2.08	..	..	..	..	1.84	..	..
36-36.9	..	..	..	..	2.16	..	..	..	..	..	..	2.16	..	..	..	..	..	..	..
37-37.9	..	..	..	..	2.24	..	..	..	..	..	..	2.24	..	..	..	..	..	..	..
38-38.9	..	..	..	..	2.34	..	..	..	..	..	..	2.31	..	..	..	..	..	..	..
39-39.9	..	..	..	..	2.44	..	..	..	..	..	..	2.44	..	..	..	..	..	..	..
40-40.9	..	..	..	..	2.54	..	..	..	..	..	..	..	..	..	..	..	..	..	..
41-41.9	..	..	..	..	2.64	..	..	..	..	..	..	..	..	..	..	..	..	..	..
42-42.9	..	..	..	..	2.74	..	..	..	..	..	..	..	..	..	..	..	..	..	..

WAR on WASTE!



THE motorist, in buying oil, is entitled to correct lubrication for his engine—and it is the dealer's responsibility to see that he gets it. Sinclair feels that responsibility—and therefore manufactures Opaline Motor Oil to sell according to the Sinclair Law of Lubrication—a different grade of Opaline Motor Oil "for every degree of wear" of the engine.

This means correct lubrication and economical transportation. It is the motorist's protection against *Waste of Power* and wearing of parts. This is the Sinclair dealer's method of making more satisfied customers.

SINCLAIR REFINING COMPANY
45 Nassau Street, New York
Atlanta Detroit Kansas City Chicago Houston Omaha

SINCLAIR OPALINE MOTOR OIL
REG. U. S. PAT. OFF.

1916-26—TEN YEARS OF MANUFACTURING AND DISTRIBUTING PETROLEUM PRODUCTS OF QUALITY

ENTIRE CONTENTS COPYRIGHTED, 1926, BY SINCLAIR REFINING CO.

TEXAS PANHANDLE

Posted by Magnolia, Kay County Gas Company, Gulf and Humble Oil and Refining Company.

	Sept. 8 1926 Other Cos.
28 to 28.9 gravity	$1.35
29 to 29.9 gravity	1.40
30 to 30.9 gravity	1.45
31 to 31.9 gravity	1.50
32 to 32.9 gravity	1.55
33 to 33.9 gravity	1.60
34 to 34.9 gravity	1.65
35 to 35.9 gravity	1.70
36 to 36.9 gravity	1.75
37 to 37.9 gravity	1.80
38 to 38.9 gravity	1.85
39 and above	1.90
(Humble Oil and Refining Company Only)	
39 to 39.9 gravity	1.90
40 to 40.9 gravity	1.95
41 to 41.9 gravity	2.00
42 to 42.9 gravity	2.05
43 to 43.9 gravity	2.10
44 and above	2.15

CRANE-UPTON COUNTIES

Posted by Kay County Gas Company and Humble Oil & Refining Company.

	Sept. 8 1926
Below 26 gravity	$1.20
26 to 26.9 gravity	1.25
27 to 27.9 gravity	1.30
28 to 28.9 gravity	1.35
29 to 29.9 gravity	1.40
30 to 30.9 gravity	1.45
31 to 31.9 gravity	1.50
32 to 32.9 gravity	1.55
33 to 33.9 gravity	1.60
34 to 34.9 gravity	1.65
35 to 35.9 gravity	1.70
36 and above	1.75

WYOMING-MONTANA

Wyoming

	Sept. 8 1926
Byron	2.25
Ferris	1.53
Elk Basin	2.40
Grass Creek	2.40
Rock Creek	2.40
Lost Soldier	1.10
Lance Creek	2.40
Mule Creek	1.75
Notches	.65
Big Muddy	2.25
Osage	2.15
Hamilton Dome	.73
Pilot Butte	1.75
Torchlight-Greybull	2.15
Lander	1.10

Salt Creek (Midwest Refining Company)

29 to 29.9 gravity	1.73
30 to 30.9 gravity	1.81
31 to 31.9 gravity	1.89
32 to 32.9 gravity	1.97
33 to 33.9 gravity	2.05
34 to 34.9 gravity	2.13
35 to 35.9 gravity	2.21
36 to 36.9 gravity	2.29
37 to 37.9 gravity	2.37

Montana

Sunburst	1.05
Cat Creek	2.15

NEW MEXICO

Artesia	1.95
Hogback	1.95

CANADIAN CRUDE

Oil Springs	2.95
Petrolia	2.80

*Bounty on Canadian crude is ¾ cent per gallon, or 26¼ cents per barrel

LOUISIANA-ARKANSAS

Caddo Light

38 gravity and above	2.45
35 to 37.9 gravity	2.35
32 to 34.9 gravity	2.25
*Below 32 gravity	2.10

Caddo Heavy

Below 26.0	1.40
26 to 28.9	1.55
29 to 31.9	1.70

Homer

Below 31 gravity	1.85
35 gravity and above	2.20
33 to 34.9 gravity	2.10
31 to 31.9 gravity	2.00

Cotton Valley

All Grades	1.20

Haynesville

33 gravity and above	2.10
Below 33 gravity	2.00

Pine Island (Posted by Magnolia)

Below 26	1.40
26 to 28.9	1.55
29 to 31	1.70
32 to 34.9	2.25
35 to 37.9	2.35
38 and above	2.45

Bull Bayou

38 gravity and above	2.25
35 to 37.9 gravity	2.10
32 to 34.9 gravity	1.95
De Soto crude	2.30
Crichton	2.10
Bellevue	1.50
Jennings	1.50
Vinton	1.50
Edgerly crude	1.50
Urania	1.25

Smackover (Standard, Gulf, Louisiana, Shreveport-El Dorado and Atlanta)

27 and above	1.50
26 to 26.9 gravity	1.45
25 to 25.9 gravity	1.40
24 to 24.9 gravity	1.35
Below 24 gravity	1.10

The Texas Company

27 and above	1.50
26 to 26.9 gravity	1.45
25 to 25.9 gravity	1.40
24 to 24.9 gravity	1.30
Below 24 gravity	1.10

El Dorado and Lisbon (Atlantic)

37 and above at 60 degrees	2.30
35 to 36.9 gravity	2.20
33 to 34.9 gravity	2.10
Below 33 gravity	2.00
East Field (Calion)	.95

Stephens District

26 gravity and above	1.65
Below 26 gravity	1.45

*The Texas Company's posting on below 32 gravity is $1.85.

"It's the SLOT in Slotted Pipe that counts"

Actual photo of a section of Kobe Pipe, showing proportionate dimensions of slot. Any grain of sand which can enter at outside opening cannot become clogged, because the slot widens toward the inside.

The Kobe Slot

The Average Straight Slot

KOBE SLOTS TEND TO ELIMINATE CLOGGING

By referring to the diagrams above it can easily be seen that the design of the Kobe Slot is such that clogging by sand and pebbles is practically eliminated. The plane surfaces of the slot are perfectly smooth and offer no hindrance to the free passage of the sand which enters it. The small angles between the walls of the slot, widening toward the inside, insure that any pebbles entering from the outside will go through. This is a distinct advantage over the average straight slot which usually is narrower on the inside and therefore, tends to hold those grains of sand, or pebbles which are just large enough to enter the outside opening.

The Kobe Slot is a perfected scientific development which has made Kobe Heat Treated Screen Casing the outstanding slotted pipe for oil country service.

KOBE
INCORPORATED
1917 East 51st St., Delaware 7450
LOS ANGELES, CALIFORNIA
Eastern Representative:
H. H. Bibby, 1121 Knickerbocker Bldg.,
42nd and Broadway, New York

KOBE HEAT-TREATED CASING SCREEN

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

Summarized Review of Field Results

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Production This Week	Initial Production Last Week
Arkansas	24	17	16	12	1	1	7	4	655	542
California	19	13	17	11	..	..	2	2	3,365	5,043
Colorado	..	1	..	..	..	..	..	1	....	....
Indiana	6	21	4	10	1	6	1	5	36	233
Illinois	12	..	7	..	..	..	5	..	271	....
Kansas	31	24	13	9	2	1	16	14	2,045	580
Kentucky	31	22	26	18	..	1	5	3	337	416
Louisiana	20	22	12	12	2	2	6	8	8,855	493
Michigan	5	4	2	4	..	..	3	..	65	80
Mississippi	..	..	..	..	..	..	..	..	....	....
Montana	7	6	7	3	..	..	..	3	500	3,600
Nebraska	..	..	..	..	..	..	..	..	....	....
New York	..	10	..	8	..	..	..	2	....	17
New Mexico	2	1	1	..	..	..	1	1	40	....
Ohio	95	49	39	31	34	7	22	11	498	557
Oklahoma	88	153	52	83	3	10	33	60	12,768	25,103
Pennsylvania	1	52	1	49	..	2	..	1	1	126
Tennessee	1	..	1	..	..	..	..	..	500	....
Texas	207	226	137	151	12	9	58	66	12,155	68,272
Utah	..	..	..	..	..	..	..	..	....	....
West Virginia	32	40	5	12	20	21	7	7	155	230
Wyoming	14	6	12	6	..	..	2	..	2,080	1,140
Totals	595	667	352	419	75	60	168	188	74,326	106,432

Texas

YOUNG COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Halmack Oil Co.'s Logan 1	*	2363
Madden et al's Benson 5	60	915
J. J. Moran et al's Stewart 4	35	804
Ruff et al's Stewart 1	40	827
Texhoma O. & R. Co.'s Routan 1.	*	901
Tidal Oil Co. et al's Benson 2	35	920
Benson 8-A	10	927

ARCHER COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
American Ref. Co. et al's Turbeville 3	175	1497
Atlantic Oil Prod. Co.'s Oldham 6	10	1057
G. J. Brown et al's Perkins 3	60	1046
Perry Browning et al's Fee 1	*	871
Empire Gas & Fuel Co.'s Parkey 2	*	1750
Gates et al's Thomas 9	25	1180
Thomas 10	75	1167
Magnolia Pet. Co.'s A. J. Lowe 24.	20	1269
May Rutty 6-B	20	850
Franklin-Parrish 11-B	40	1566
Marland Oil Co.'s Thomas 3-B	75	1178
McCarty Oil Co.'s Parrish Bros. 2	*	1613
Luke-Wilson 2	60	1602
Luke-Wilson 3	40	1592
McGregor et al's Ford 13	*	600
Mid-Kansas O. & G. Co.'s Andrews 2	*	1550
Simms Oil Co.'s Turbeville 6-A	850	1538
Simms & Burns et al's Turbeville 2	*	1103
Texhoma O. & R. Co. et al's Thomas 1	*	1405
The Texas Co.'s Turbeville 3-C	205	1529

BROWN COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
J. S. Cosden et al's Williams 4	100	1144
Williams 4-A	75	1202
Williams 10-A	50	1204
Curry-Moore et al's Pickett 2	240	1288
Wooldridge 3	480	1269
Eastland Oil Co.'s Reynolds 1	*	2335
Gunn Prod. Co.'s Gunn 9	20	1185
H-W Drilling Co.'s Prather 8	20	1317
Humble O. & R. Co.'s Foster 4	200	1190
Armstrong 1	85	1201
E. P. & W. H. Kilgore 12-B	150	1191
E. P. & W. H. Kilgore 14-B	100	1185
Wooldridge 1	115	1264
Louisiana O. & R. Co.'s Henslee 4	5	1330
J. E. McKenna et al's Foster 4	200	1189
McLester Oil Co.'s W. W. Wooldridge 7	200	1160
W. M. Wooldridge 8	50	1272
McMan Oil & Gas Co.'s Gaine 1	3	1351
Prairie O. & G. Co.'s J. F. Pickett 2	25	1?12
Fred W. Turner 1	*	3270

Company, Well and Location	Initial Production Bbls.	Depth
The Texas Co.'s Gaines 1	15	1341
Stout 1	¶2	1218
West & H-Y Oil Co.'s Newton 12.	20	1200
Newton 13	10	1209

CALLAHAN COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Bradstreet et al's Sawyer 1	20	1739
Canyon Oil & Gas Co.'s Derrington 5	150	1420
Cranfill-Reynolds et al's Henderson 3	55	1405
McChesney et al's Derrington 1	30	1415
Southern Pet. Exploration Co.'s Harris 1	*	2505

COLEMAN COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Burke-Gries & Gwinnup's J. C. Dibrell	†	3168
Gilman et al's J. C. Dibrell 1	*	2250
Jewell & Sill's Smith 1	*	2015
Mid-West Exploration Co.'s Morris 1	¶25	2262
Ramsey-Maxey et al's Harris 1	*	2470
Shadboldt & Creighton's Garrett 1	*	1810

COMANCHE COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Brown Drilling Co.'s Evans 1	*	3770

BIG LAKE

Company, Well and Location	Initial Production Bbls.	Depth
Big Lake Oil Co.'s University 77	20	2936
University 85	345	2964

BURKBURNETT

Company, Well and Location	Initial Production Bbls.	Depth
Dr. C. E. Bailey et al's H. Willis 1	*	1307
H. Willis 2	*	585
The Texas Co.'s Foster-Saunders 1	5	545

CLAY COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Faubion-Miller & McGann's Scaling 1	*	905
Grisham et al's Conner 1	*	1002
Hamilton-Barkley & Meadows' Scaling 1	*	3472

COOKE COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
John W. Hooser's J. A. Dennis 2	60	1288
John W. Hooser & C. C. Lanier's Hyman 5	65	1252
C. C. Lanier et al's A. Hyman 1	45	1287
Sun Oil Co.'s A. Hyman 1	135	1173

CARSON COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
American Refining Co.'s Burnett 6	†	2960

ELECTRA

Company, Well and Location	Initial Production Bbls.	Depth
Ascot Oil Co.'s Burnett 7	*	2342
Central Holding Co.'s G. Jennings 4	*	1985
Empire Gas & Fuel Co.'s Pierce Pet. Corp. Fee 19	4	1548
Patterson et al's L. P. Douglas 1, blk 2	10	1077
Petroleum Investment Co.'s Fisher 19	10	1577
Ryan Con. Pet. Corp.'s G. E. Nance 79	35	1333
Henson 4	*	537
The Texas Co.'s W. T. Waggoner 310	60	.549
Texhoma O. & R. Co.'s W. T. Waggoner 19	3	598

K-M-A AND IOWA PARK

Company, Well and Location	Initial Production Bbls.	Depth
Kimmel-Dillard et al's Fassett-Tuttle 1	110	1361
Panhandle Ref. Co.'s Griffith 1	150	1834
Petroleum Investment Co.'s Allen-Kemp 5-D	60	1653

MONTAGUE COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Empire Gas & Fuel Co.'s Maddox 1	*	2140
Farlan Oil Co.'s Maddox 2	70	899
Fleming & Kinbell's Hinds 5-B	*	990
Lesh-McCall & Kilcrease's R. Hinds 6	30	971
Pure Oil Co.'s Maddox 2-C	135	907
The Texas Co.'s Maddox 1-C	*	2275
Oldham 14	95	1100
Oldham 15	65	1129
Texhoma O. & R. Co.'s N. J. Howard 10	45	1360
N. J. Howard 9-A	40	1127
Maddox 1-A	45	884
Rowland 6	65	1090

SOUTH VERNON DISTRICT

Company, Well and Location	Initial Production Bbls.	Depth
Humble O. & R. Co.'s W. T. Waggoner 6-I	40	1896
Murchison-Fain Oil Co. et al's Fluhman 1	†	720
Phillips Pet. Co.'s W. T. Waggoner 11-QQ	60	1894
G. C. Woods et al's Haney 1	*	2602

UPTON COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Independent O. & G. Co.'s Emma Wooley 2	4000	2213
Marland Oil Co.'s A. S. Burleson 15	150	2125
A. S. Burleson 16	150	2115
A. S. Burleson 17, shot	45	2140
A. S. Burleson 18	155	2182
Sun Oil Co.'s A. S. Burleson 3	225	2117
The Texas Co.'s R. King 4	365	2070
A. S. Burleson 2	130	2218

EASTLAND COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Ross-Frost et al's Falls 1	*	1605
Texas Pacific Coal & Oil Co.'s Durocher 1	10	3690

JACK COUNTY

Hester-Hawkins & Staley's Snedecker 3	5	792

McCULLOCH COUNTY

Van Bibber et al's Roberts 2	*	1000

PALO PINTO COUNTY

Meyers-Williams et al's Satterfield 1	¶½	1005

SHACKELFORD COUNTY

Carter et al's English 1	*	1005
Derby Oil Co.'s Moberly 1	20	1042
Hope Pet. Co.'s Poindexter 1	*	1303
Reynolds 8	*	1500
Humble O. & R. Co.'s Cook 8	285	1349
Magnolia Pet. Co.'s J. L. Terry 6	225	2218
Panhandle Ref. Co.'s Flippen 1	*	1303
Reclamation Oil Co.'s Jeter 1	*	1360
Roeser-Pendleton, Inc.'s W. I. Cook 2-B, sec 61	200	1310
W. I. Cook 9-B, sec 84	*	1415
W. I. Cook 12-B, sec 85	45	1225
W. I. Cook 15-B, sec 85	40	1212
Roeser-Pendleton & Marland Oil Co.'s W. I. Cook 18-A, sec 84	75	1385
W. I. Cook 20-A, sec 84	50	1120
W. I. Cook 22-A, sec 84	75	1273
W. I. Cook 23-A, sec 84	*	1378
W. I. Cook 24-A, sec 84	¶¾-100	1122
W. I. Cook 16-A, sec 85	¶2¼-130	1288
Skelly Oil Co.'s Matthews 1,	12	800

STEPHENS COUNTY

Mid-Kansas O. & G. Co.'s S. H. Hill 1	500	3186
Sun Oil Co.'s W. E. Carey 6	100	2231

HUTCHINSON COUNTY

Amarillo Oil Co.'s Bivins 4-B	¶70	2720
Amerada Pet. Corp.'s J. A. Whittenburg 4-B, shot	325	3020
Delmar Oil Co.'s Johnson 1	75	2972
Goldelline Oil Co.'s J. A. Whittenburg 1-A	†	780
Gulf Prod. Co.'s J. A. Whittenburg 1-A, shot	325	2946
Gulf-Cline & Panhandle Ref. Co.'s Dial et al 21	1590	2895
Dial et al 22, shot	85	2817
Marland Oil Co.'s Dial-Perkins 8, shot	250	2942
J. A. Whittenburg 4-A, shot	50	2994
McMan O. & G. Co.'s Johnson-Ray Wheatly 2, shot	5	2904
J. A. Whittenburg-Archer 1, shot	80	2841
J. A. Whittenburg-Archer 2, shot	50	2915
J. A. Whittenburg-Archer 3, shot	125	2918
New Domain O. & G. Co.'s W. L. Kingsland 2, shot	100	2989
Phillips Pet. Co.'s J. A. Whittenburg-Coble 14	80	2993
Phillips Pet. Co. & Gibson O. Corp.'s J. A. Whittenburg 7	50	2726
J. A. Whittenburg-Patton 1	75	2988
Phillips Pet. Co. & George Williams' Johnson 2	150	3020
Prairie O. & G. Co. & Phillips Pet. Co.'s Johnson 12-A, shot	115	3058
Johnson 14-A, shot	100	2808
Roxana Pet. Corp.'s Smith 4-B, shot	30	2850
Skelly O. Co.'s Johnson-Cunningham 2, shot	20	2977
Sun Burst O. Co.'s Smith 2	1700	2987

GRAY COUNTY

Wilcox O. & G. Co.'s Worley-Reynolds 4	300	2884

COASTAL COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Spindletop—		
Gulf Prod. Co. Daisy Roche et al 2	3000	3250
Oakwood Realty Co. 3	2500	2600
Atlantic O. Producing Co. McLean 4	1085	3250
Ross Combest Ewing & Ring 1	*	3450
Lord Mothmer O. Co. Davis 1	*	2210
Porch & Telshaw Trembly 5	*	2400
Paggi & Co. Gordon 1, wo	1000	3450
Seven O. Co. Trembly 2	*	1550
Turnbow O. Co. Banks 1	480	3350
Unity O. Co. McFadden 89	3000	2710
Wilson-Broach Weed 1	*	2700
Batson—		
S. R. Buchanan Millholme 90	*	790
East Batson O. Co. Counzelman 9	*	1110
Goose Creek—		
Gulf Prod. Co. Chapman-Bryan 12	140	4400
Wright 7	*	5200
Sour Lake—		
J. F. Bashara Fee 1	3300	3800
Hull—		
Republic Prod. Co. Dolbear 135	50	2730
South Liberty—		
Premium O. Co. Mitchell 1	*	4075

NORTH CENTRAL TEXAS

Nigger Creek—		
Barkley & Meadows Rosson 1	350	2850
Bass et al Church Lot 1	*	2840
Godley et al Rosson "A" 1	1900	2820
Murchison-Fain Rosson 1	400	2850
Pure O. Co. Atkins 2	315	2850
E. L. Smith Rosson 1	2685	2825
The Texas Co. O'Dell 1	*	3150
Transcontinental Oil Co. Atkins 3	450	2850
Cogdell 2	850	2850
Rossan "A" 1	700	2850
Rosson "A" 4	475	2850
Powell—		
Derby O. Co. Harvard 10	*	2950
Thompson et al Wollens 1	*	2975
Ennis—		
Magnolia Pet. Co. Gatzendaner 1	*	2975

SOUTHWEST TEXAS

Gulf Prod. Co. test in southwest cor. of sur 323	¶	1743
O. W. Killam Lopez 4	¶	1745
Jim Hogg County—		
Magnolia Pet. Co. 9, sur 291	100	1286
Maddox & Smith 2, sur 291	150	1296
Webb County—		
Columbia O. Corp. 13	100	1725
Simms O. Co. Bruni 4	¶	....
The Texas Co. 1, sur 84	¶	2614
O'Hern-Seacord 1, sur 174	¶	....
Medina County—		
Ina Oil Co. Finger 1	¶	800

SOUTH LOUISIANA

Evangeline—		
Jennings Pet. Co. Crowley 4, wo	*	1700
Lockport—		
Vacuum-Gulf Co. Bordages 3	8000	3775

Louisiana

Caddo Parish—		
Gulf Ref. Co.'s Muslow 1, 35-21-15	*	4963
Monroe Gas Field—		
Natural Gas & Fuel Corp.'s Tensas Delta 7, 2-21-4e, Morehouse Parish	¶5½	2200
R. J. O'Brien et al's Roy Green 2, 35-19-4e, Ouachita Parish	¶2½	2207
Total, 2 wells	¶8	
Urania Field, La Salle Parish—		
Humble O. & R. Co.'s Louisiana Central A-3, 25-11-2e	*	1756
H. L. Hunt's Griswold 2, 2-9-1e	40	1497
Little River Oil Co.'s Ratcliff 1, 26-10-1e	10	1559
Louisiana Oil Ref. Corp.'s Tremont A-10, 35-10-1e	15	1549
Tremont C-3, 2-9-1e	250	1504
Natural Gas & Fuel Corp.'s Russell A-3, 26-10-1e	15	1553
Tullos 3, 26-10-1e	25	1533
Urania M-3, 20-10-2e	40	1542
Pima Oil Corp.'s Urania B-6, 7-10-2e	100	1512
Geo. W. Wetherbee's Urania A-3, 2-9-1e	200	1499
Urania Field, Winn Parish—		
O. W. Clark Trust's Harper 7, 26-10-1e	60	1491
Harper 8, 23-10-1e	100	1500
Total, 12 wells	855	

Arkansas

Irma Field, Nevada County—		
Autrey et al's Womack 6, 10-14-21	50	1225
Stephens Field—		
Magnolia Pet. Co.'s Watson 4, 31-15-19, Ouachita County	5	2180
Gordon-Folwell-Dickson Synd.'s Jones 6, 1-16-20, Columbia County	5	2233
Total, 2 wells	10	
Smackover Field, Ouachita County—		
A. Meek Trust's Clawson 2, 35-15-17	60	2312
Simms Oil Co.'s F. A. Laney 10, 31-15-15	50	2585
Standard Oil Co.'s R. Bennett B-8, 32-15-15	50	2587
Smackover Field, Union County—		
Arkansas Drilling Co.'s Turnage 2, 34-15-16	*	2390
Gulf Ref. Co.'s T. C. Murphy 22, 9-16-15	300	2386
Hollyfield et al's Giller 10, 11-16-15	15	2000
Total, 6 wells	475	
Lisbon Field, Union County—		
Eason et al's Mooty 3, 22-17-16	10	2167
Gulf Ref. Co.'s Parker 4, 21-17-16	25	2138
Lion O. & R. Co.'s Mitchell A-16 17-17-16	¶1	2173
Magnolia Pet. Co.'s Harrell 7, 4-17-16	45	2140
Hulsey 2, 20-17-16	40	2158
Slaughter 2, 8-17-16	20	2113
J. L. Meek's Milner 1, 15-17-16	5	2202
Ohio Oil Co.'s Stocks 2, 21-17-16	20	2165
Southern Crude Oil Purchasing Co.'s Tooker 1, 3-17-16	5	2065
Total, 9 wells	¶1-170	

Kansas

Butler County—		
Emipre Gas & Fuel Co., Love 31, NEc NW NW 29-28-4	130	2474
Templeman, Frantz et al, Sniverly 1, NEc SW 30-23-7	*	2820
H. H. Patton, Eist 1, SWc NW 14-27-5	*	3190
Connell Sheldon et al, Stebbins 1, NWc SW NE 19-27-7	*	2786
Empire Gas & Fuel Co., Tobler 3, NWc SW NE 27-27-7	*	2850
Chase County—		
Empire Gas & Fuel Co., Lipps 1, C SE NW 29-18-7	¶5	1161
Cowley County—		
Gypsy Oil Co., Shannon 10, NWc NE NW 24-32-4	40	3005
Forrester et al, Reynolds 1, owd, NWc NE 4-22-7	¶¾	2434
Greenwood County—		
Day et al, Fuller 4, NEc SE SW 1-22-10	100	2014
Syndicate Oil Co., Fuller 5, SWc NW SW 1-22-10	400	2037
Empire Gas & Fuel Co., Atyeo 11, NEc SW 6-22-10	40	2278
Phillips Pet. Co., Warrensburg 8, NWc NE SW 12-22-10	100	2122
Emipre Gas & Fuel Co., Fronne 12, NWc SW NE 14-22-11	100	1914
Fankhauser 7, NEc SE SE 4-22-12	25	1832
Simmons et al, Fankhauser 6, NEc NW SE 4-22-12	200	1820
Phillips Pet. Co., Chandler 3, SEc NE 5-22-12	10	1911
McGinnis et al, Wiggins 9, NWc SW 30-24-11	400	1824
Wiggins 10, SWc 30-24-11	200	1844
The Texas Co., Prather 9, SWc NW SW SW 29-22-10	*	....
Tidal Oil Co. et al, Prather 25, SEc NW 20-22-10	*	....
Simmons et al, Fankhauser 10, SEc NE SE 4-22-12	*	1824
Manhattan Oil Corp., McDowell 1, SEc NW NE 12-23-3	*	2500
White Eagle Oil & Ref. Co., Morris 2, NWc SE SE 19-23-9	*	2717
Manhattan Oil Corp., Lozier 1, NEc SE 36-24-10	*	2225
Stark et al, Ott 1, SEc SW 13-24-11	*	1836
Peerless Oil & Ref. Co., Garrison 1, NWc NE 33-24-11	*	1945
Marion County—		
Sheedy & Empire Gas & Fuel Co., Allison 6, SWc SE 13-21-4	300	2361
Lyon County—		
Ritchey & Moore, Bender 1, NWc NE 32-18-10	*	2353
Sheedy et al Atyeo 13, NEc SW SW 31-21-10	*	2400

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Houston, Texas.

Company, Well and Location	Initial Production Bbls.	Depth
Osage County—		
Callahan, Scott et al, Walker 1, NEc SW 23-17-15	*	....
Reno County—		
Tatlock et al, Demorest 1, SEc SW 30-26-6	*	4196

Oklahoma

Carter County—		
Coneron Ref. Co. et al, Bumpass 1, NEc SW SE 33-1-3	42	3188
Wirt Franklin, Smith 1, SWc NE 3-2-3	450	2217
Skelly Oil Co., Moore 1, SWc NW 17-2-2	40	2502
Magnolia Pet. Co., Lohman 12, SWc SE NE 23-2-3	*	1335
Comanche County—		
Westheimer & Daube, Guthrie 1, SWc NW NW 19-2-9	235	1843
Mid-Kansas Oil & Gas Co., Rowe 1, SWc NE 21-4-10	*	2320
Clyde Becker, Hinde 1, NEc NW 30-4-10	*	2513
Cochran & Abernathy, Fool 1, C NE NW 32-4-10	*	2261
Creek County—		
Gled Oil Co., Ross 4, NWc NE NW SW 13-19-8	150	2410
Ross 5, NEc NW SW 13-19-8	100	1606
Magnolia Pet. Co., Derrisaw 3, NWc SW SE, owd, 32-18-7	20	2725
Drumright 1, SWc SE SW 32-18-7	15	2714
Savoy Oil Co., Walker 3, SE NE NW 23-17-8	30	2350
Mid-West & Gulf, Murrell 2, SEc SW NE 17-19-9	¶2	2251
Harwell et al, Chisholm 1, SEc NE SW 3-17-9	110	2941
The Texas Co., Simmons 4, SWc SE SE 3-17-9	35	2070
Roxana Pet. Corp., Bruce 2, NEc NW NE 10-17-9	135	2130
Skelly Oil Co., Yellowhead 1, SEc NW SW 32-17-10	330	2709
Overlass et al, Tiger 1-A, NWc 34-17-11	5	1815
J. A. Porter et al, Cowen 1, NEc NW SW 14-16-11	5	1850
Wood Oil Co., Tye 1, NWc SE 25-14-9	¶2	2067
Gledden et al, Unallotted 1, NEc SW NE 4-9-10	*	2236
Hivick et al, Unallotted 2, NWc SW NE 4-19-10	*	2430
Garfield County—		
Mid-Continent Oil Co., and Marland Oil Co., School land 64, NWc NE SE 13-22-4, owd	831	3645
Sinclair Oil & Gas Co., Walker 25, SEc SW NE 13-22-4	500	3694
Walker 54, SE SW NE NE 13-22-4	125	2888
Walker 55, SE NE SW NE 13-22-4	110	3093
Garvin County—		
Magnolia Pet. Co., Harris 12, NWc SW 16-1-3	16	1924
Carter Oil Co., Derdeyn 8, SWc SE SW NW 17-1-3	25	1702
The Texas Co., Derdeyn 13, SWc SE NE 17-1-3	45	1608
Magnolia Pet. Co., Derdeyn 1, NW NE NW NE 20-1-3	60	1905
Texas Pacific Coal & Oil Co., Franklin 1, NEc SW 35-3-2	*	2480
Hughes County—		
Independent Oil & Gas Co., Davis 3, NWc SW SE 26-9-9	340	3336
Gypsy Oil Co., Seay 30, C W L SE 27-9-9	90	3326
Transcontinental Oil Co., McKinney 1, NEc NW 35-9-9	230	3369
Amerada Pet. Co., Frederick 5, SEc NW NE NW 5-7-8	1068	4153
Jefferson County—		
Gypsy Oil Co., Seay 30, C W L SE NW 33-6-5	30	1340
Seay 31, C S L SW NE 33-6-5	125	1278
Kay County—		
Arkansas Fuel Oil Co., Kelly 4, SEc 4-27-1	212	3425
Lincoln County—		
Magnolia Pet. Co., Owens 2, SWc NE SW 8-15-6	320	4077
Muskogee County—		
C. M. Bradley, Crittenden 2, C N L NW SW 5-14-19	30	700
Nowata County—		
The Prairie Oil & Gas Co., Emma Campbell 16, NWc NE SW 31-25-17	50	468
Okfuskee County—		
Atlantic Oil Producing Co., Wind 1, SEc SW NE 35-11-9	150	2850
F. A. Ravel et al, Likowaki 1-A, NEc SE SW 23-11-11	5	1662
Amerada Pet. Co., Harrison 2, NEc NW SE 17-12-10	*	3118
Link Oil Co., Stidham 1, NWc 3-11-10	*	3975
Okmulgee County—		
J. A. Swindler & Sons, Lewis 8, C W L SE NE 25-13-11	60	2486
The Texas Co., Bruner 5, C W L SW SE 16-15-14	360	2379
Garnett 14, NEc NW NE 21-15-14	240	2264
Twin State Oil Co., Severs 5, NWc 22-15-14	25	2289
E. A. Hutchinson, Harris 2, C N L SH SE 1-14-14	50	1631
B. Morgan, Kanard 6, SEc NE NE 13-11-13	¶1	1893
Henry Oil Co., Hickory 1-A, NWc NE SW NW 17-12-10	*	2923
J. M. Kessler, Filly 1, SWc SE SW 19-14-15	*	2817
J. R. Parks, Dumit 5, C W L SE SE 32-14-15	*	2047
Osage County—		
Osage Dev. Co., 42, NW SE NW 35-29-11	100	916
Phillips Pet. Co. 6, NE SW NE 12-27-5	150	3027
11, SW NE NE 12-27-5	250	3007
10, SE NW SW 7-27-6	200	3000
Pure Oil Co., 89, SW NW NE 11-27-10	200	1306
Lewis Oil Co., 8, SE NW SE 21-26-6	352	2965
9, SE SW SE 21-26-6	300	2944
Barnsdall Oil Corp., 16, NW NE SE 5-20-12	30	1350
Gillespie & Sons, 6, C S L NE 5-20-12	20	1365
Blackwell Oil & Gas Co., 1, SEc NW 15-29-10	*	1733
Tidal Osage Oil Co., 18, NWc SE 7-28-7	*	2860
Skelly Oil Co., 3, NW SE NW 2-27-5	*	3035
Gypsy Oil Co., 1, NEc SE 36-25-5	*	3610
Carter Oil Co. 1, SWc NW NE 10-25-8	*	2930
Warwick Oil Co., 1, SEc NW 24-21-9	*	2743
Pawnee County—		
Devonian Oil Co., Dobson 2, SW SE NW 35-22-6	15	2684
Fern Oil Co., Lesher 3, NEc SW NW 22-20-6	35	3097
Gypsy Oil Co., Murlin 1, NEc NW 27-18-3	*	4725
Seminole County—		
Searight et al, Youngblood 3, NEc SW NW 22-20-6	525	4114
Carter Oil Co., Stewart 1, SWc NW SW 34-10-6	3792	4103
Tulsa County—		
Linden et al, Norton 1, SWc 10-19-14	*	1305
S. W. Anthony, Sanderson 2, owd, NWc SE NW 3-16-12	*	1750
Beckham County—		
W. R. Duke, McGeem 1, NWc SW NE 25-8-22	*	1070
Van Vector 1, SEc NE NE 25-8-22	*	1310
Caddo County—		
Gorton Trust Co., Wagoner 6, C NE SW 12-5-9	*	1310
Cotton County—		
W. B. Lindsey, Cooper 1, SEc NW 12-4-10	*	2500
Payne County—		
Gypsy Oil Co., Murlin 1, NEc NW 27-18-3	*	4725
Noble County—		
Magnolia Pet. Co. and Bu-Vi-Bar Pet. Co., Reyonlds 1, NEc NW NW 21-21-2	*	5108

Mountain States

WYOMING

Salt Creek—		
Wyoming Associated Oil Co., No. 22-A, NW¼ 26-40-79	100	1525
No. 36-A, NE¼ 36-40-79	100	1485
No. 36-A, SE¼ 36-40-79	110	1525
No. 19-L, SW¼ 26-40-79	350	1225
Midwest Oil Co., No. 19-L, NE¼ 35-40-79	125	2185
No. 31-L, SW¼ 35-40-79	300	2435
No. 21-A, NE¼ 14-40-79	70	1020
No. 16-L, NE¼ 35-40-79	400	2395
No. 23, SW¼ 35-40-79	100	1200
No. 1-L, SE¼ 26-40-79	300	2415
Wyoming Oil Fields Co., No. 15-A, NW¼ 23-40-79	75	1200
Ohio Oil Co. No. 3,	50	2725
Crook's Gap—		
Producers & Refiners Corp. No. 2, 13-28-93	*	3340
No. 3, 12-28-93	*	2700

NEW MEXICO

Eddy County—		
Texas Production Co. No. 6, 5-18-28	40	2250
Rio Arriba County—		
Knight Synd. No. 1, 33-30-7	*	1040

MONTANA

Ohio Oil Co. No. 10, SE¼ 4-35-2	50	1690
No. 12, NE¼ 30-35-1	40	1500
No. 2-A, NE¼ 21-35-1	60	1620
California Co. No. 3, SE¼ 34-35-2	100	1542
O'Neill Bros., No. 4, SE¼ 27-35-2	100	1420
Ferdig Oil Co., No. 7, NE¼ 1-34-8	50	1455
Red Deer Oil Co.'s No. 7, SW¼ 29-35-1	100	1530

California

Long Beach—		
F. M. & S. Oil Co., Los Cerritos 1	50	4799
Gallagher Trust, Los Cerritos 1	80	4775
Rio Grande Oil Co., Ramsey Municipal B-7	250	4879
Umpire Pet. Co., Cerritos 39	225	4765
Dominguez—		
Shell Co. of Calif., Reyes 33	600	4058
Torrance-Redondo—		
Chanslor-Canfield-Midway, Del Amo 79	125	3474
Shell Company, Redondo 14	22	3600
Standard Oil Co., Marble Lease	90	3810
Huntington Beach (New field)—		
Julian Pet. Corp., Lambert 1	534	3112
Huntington Beach (Old field)—		
Standard Oil Co., Huntintgon Beach 49	260	3545
Huntington Beach 35	155	3425
Brea-Richfield—		
S. H. Keoughan, Kraemer 2	480	4585
Kern Front—		
Geo. F. Getty, Tegeler 4	160	2460
Midway—		
General Pet. Corp., Balboa 52	96	4170
Union Oil Co., Buena Vista 4	200	3960
Piru District—		
Tehmescal Pet. Co., Barker 3	115	2204

Eastern States

PENNSYLVANIA

Allegheny County—		
Thomas McDermott, Thornburg 1	1	....

WEST VIRGINIA

Lincoln County—		
Cambridge Gas Co., Cora Linville 3	¶1½	....
H. H. Wade 1	¶1	....
Union Oil & Gas Co., Willard Harless 1	¶1½	....
United Fuel Gas Co., Horse Creek Coal & Land 3	¶1	....
Columbia Gas & Electric Co. G. & W. Chamberlain 1	¶1	....
Huntington Dev. Co., Julia M. Engor 1	¶1¾	....
Clay County—		
South Penn Oil Co., O. D. Stockly 24	60	....
O. D. Stockly 33	40	....
Joseph Belcher 8	15	....
Chalmers Oil & Gas Co., Sam Samples 2	¶3½	....
Pleasants County—		
D. A. Dickens & Co., W. E. Hamett & Co. 1	20	....
Big Bend Oil Co., George Cilvin 1	*	....
Boone County—		
Owens Bottle Machine Co., Little Coal & Land 4	¶¼	....
Cassingham & Co. 1	¶3	....
Ritchie County—		
Spencer Oil & Gas Co., E. C. Wilson		

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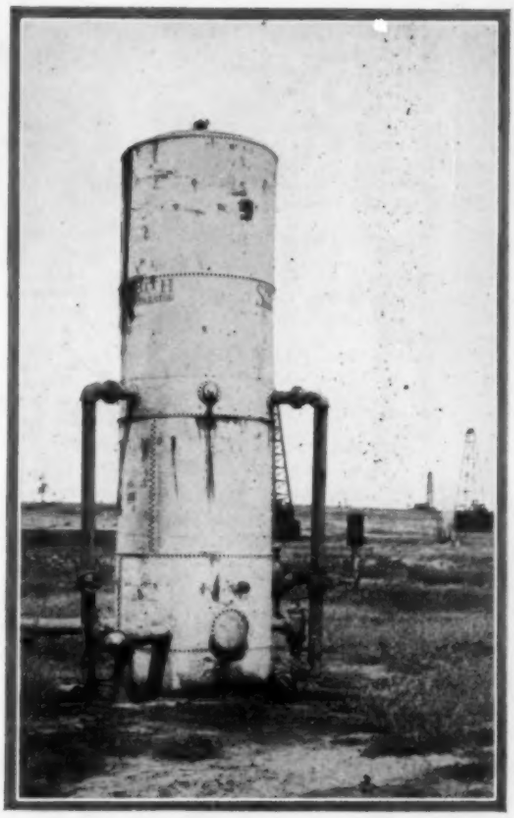

Above is reproduction of field picture showing two No. 10 Smith Oil and Gas Separators. Each separator has a rated capacity of 25,000 bbls. oil and 100 million cu. ft. gas.

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London Office:
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25 Bishopsgate
Cable Address: "Oileborers," London

Texas Offices: 924 Post-Dispatch Bldg., Houston, Texas.
1206 F. & M. Bank Bldg., Fort Worth, Texas.

Company, Well and Location	Initial Production Bbls.	Depth
2	¶1½	....
Hope Natural Gas Co., C. B. Nutter 1	¶¼	....
Putnam County—		
Kelley & Kirtley, C. L. Sanders 1	¶1	....
Thompson, Shannon & Co., Parker School Lot 1	*	....
Roane County—		
South Penn Oil Co., Phoebe Roberts 1	*	....
United Fuel Gas Co., W. C. Campbell 1	¶3½	....
Wetzel County—		
Hope Construction & Ref. Co., J. A. Riter 1	20	....
Lewis County—		
Mud Lick Oil & Gas Co., E. G. Davisson 1	¶¼	....
Upshur County—		
Edgell Oil & Gas Co., C. Wilfong 1	¶¾	....
Marion County—		
Carneigie Natural Gas Co., S. G. Thorn 1	¶2½	....
Harrison County—		
Conservative Oil Co., A. A. Williams 4	¶¼	....
Doddridge County—		
Hope Construction & Ref. Co., T. J. Smith 1	¶1	....
Logan County—		
Wocotock Oil & Gas Co., Ringess Run Coal Land 13	¶1¼	....
Monongalia County—		
Manufacturers Light & Heat Co., Clara Tennant 1	¶2½	....
Marshall County—		
Manufacturers Light & Heat Co., W. & E. Calvert 1	*	....
Wirt County—		
Roberts Bros. Rathbone tract 147	*	....
Cabell County—		
Harschbarger Oil & Gas Co., E. & C. Harshbarger 1	*	3921
Braxton County—		
Pittsburgh & West Va. Gas Co., F. B. Dobbins 1	*	....

KENTUCKY

Company, Well and Location	Initial Production Bbls.	Depth
Owensboro District—		
Penn-Indiana Oil Synd., Brown 1	60	750
O. A. Greer 1	*	800
White Plains Oil & Gas Co., J. Ward 3	15	747
Leeper Oil Co., J. S. Colyer 2	10	....
Butte Dredging Co., Allice Evans 2	*	....
Allen County—		
Citizens Oil Co., J. H. Rickman 19	*	395
Barren County—		
Ziegler Bros. Co., Dauter Bros. 1	20	....
Wayne County—		
Superior Oil Corp., James Dabney 13	3	....
Vulcan Oil Co., T. T. Davis 18	*	....
Lee-Owsley Counties—		
Ohio Oil Co., Flahaven Land Co. 82	5	....
Flahaven Land Co. 83	5	....
Johnson-Magoffin Counties—		
Burton Fork Oil Co., B. McCormick 9	5	....
Hudson & Collins, Oscar Wheeler 11	10	....
R. G. Gillespie Interests, Hale 4	15	....
Hupp, Duff & Co., B. F. Whitt 1	30	....
Cumberland Pet. Co., C. Bailey 42	10	....
Oliver Jenkins & Co., Salter Heirs 9	25	....
Estill County—		
Wood Oil Co., William Neal 9	10	....
William Neal 10	12	....
Superior Oil Corp., Campbell 7	*	....
Simpson Horn 12	10	....
Simpson Horn 15	10	....
Simpson Horn 16	8	....
Simpson Horn 17	12	....
Lawrence-Johnson Counties—		
Swiss Oil Corp., M. Ferguson 14	10	....
P. Holbrook 45	15	....
P. Sparks 32	12	....
Townsend & Garrison, L. T. Sparks 11	5	....
I. N. Sparks 10	3	....
Keaton Oil & Gas Co., J. Lyons 32	12	....
Wheeler-Watkins Oil Co., E. Walters 3	5	....

TENNESSEE

Company, Well and Location	Initial Production Bbls.	Depth
Clay County—		
J. H. McClurkin & Co., Len Cunningham 1	500	298

SOUTHEASTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Washington County—		
Muskingum Gas Co., Mary J. Smith 3	*	....
Walter Proctor 5	¶¼	....
Rufus Beach 1	¶1¼	....
J. P. Lawton 2	¶¼	....
Ohio Oil Co., C. C. Hayer 1	5	....
John F. Ward & Co., Wharton Hrs. 2	2	....
Dent & Co., Esther Goddard 3	¶½	....
Worthington & Co., E. Williams 1	¶¼	....
Anderson & Co., J. F. Greenless 3	¶½	....
Barrows Oil Co., Hazel Root 2	*	....
Braden Oil Co. & Co., Harry Felter 2	*	....
Morgan County—		
Pure Oil Co., Isaac Smith 9	10	....
William Eppley 12	12	....
M. F. Williams 4	10	....
The Sun Co., Joseph Longstreth 6	¶1½	....
Ohio Fuel Supply Co., Matilda Eppley 3	¶½	....
H. D. Hoffman 1	¶½	....
J. J. Joy 3	¶½	....
Monroe County—		
J. H. Brown & Co., F. D. Daugherty 2	2	....
California Producing Co., M. J. Heddleson 1	2	....
H. A. Hendershot & Co., Charles Haught 5	2	....
Whitten Oil Co., H. H. Smith 2	2	....
Noble County—		
Joseph Sailing & Co., Caroline Crotton 1	3	....
A. S. Rucker & Co., Fannie Shafer 1	2	....
J. H. Yearian & Co., E. C. Brown 5	*	....
Jefferson County—		
S. H. Boyle & Co., W. L. Groves & Co. 9	13	....
O. M. Stratton, H. Wilson 1	2	....
Columbiana County—		
Natural Gas Co. of W. Va., J. T. Leightner 1	2	....
Harrison County—		
Standard Hocking Coal Co., Fee 3	80	....

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Athens County—		
Logan Gas Co., Eaton Chase 2	*	....
I. & E. Pierce 1	¶1	....
Cook & Co., H. Milliron 1	2	....
J. A. Ronshausen & Co., J. W. Wood 5	*	....
Cook & Sayer, E. H. Warren 1	¶1½	....
Daily & Son, Joe Robinson 1	¶¼	....
E. A. Sweeney & Co., Dent Ackley 1	¶¼	....
Daniel Ackley 1	¶1¼	....
Nickle & Co., C. M. Higgins 1	2	....
Frank Selby, Frank Selby 7	¶¼	....
Wayne County—		
Westheffer & Winger, A. Zollinger 1	¶¼	....
Logan Gas Co., Lorena King 1	*	....
O. E. Frank 3	¶2	....
Empire Gas & Fuel Co., Ora Kenney 2	¶2½	....
Ohio Fuel Gas Co., Stanley Smith 1	¶1¼	....
Warren Palmer & Co., S. A. Swanson 4	¶3¼	....
Glen Harmon & Co., Clayton Good 3	¶5½	....
Holmes County—		
East Ohio Gas Co., Christian Miller 1	*	....
Logan Gas Co., Levi Weaver 1	¶1¼	....
Pure Oil Co., Warren R. Close 3	40	....
Mrs. Wilson Pyers 1	2	....
Ohio Fuel Gas Co., S. J. Miller 1	*	....
Hocking County—		
Gordon Oil Co., J. A. Kitchen 2	10	....
Preston Oil Co., L. G. Linton 1	¶1	....
Maysville Oil Co., T. J. Mowery 3	*	....
Martin Oil Co., J. W. Crawford 1	*	....
O. F. Pierpoint & Co., O. F. Pierpoint 3	*	....
Knox County—		
Pure Oil Co., A. L. Mizer 1	40	....
East Ohio Gas Co., Fred Kick 4	*	....
J. H. Moser 2	2	....
Ohio Fuel Gas Co., J. H. Workman 6	*	....
Licking County—		
Pure Oil Co., N. A. Cooms 1	10	....
North Fork Oil Co., Edward Kinsey 28	5	....
Edward Kinsey 29	12	....
Guy Shafer, James C. Haney 1	15	....
Guernsey County—		
Homer Forsythe, Wm. Michilson 1	*	....
Ohio Fuel Gas Co., Ford 2	¶3	....
H. M. Steele 1	¶3¼	....
Logan Gas Co., Howard Beeks 1	¶1	....
Ashland County—		
Logan Gas Co., Jennie Murray 1	*	....
Hattie Tedrow 1	¶½	....
J. C. Walter 1	*	....
Hulse & Kundtz, William Barnes 1	*	....
Cuyhoga County—		
Wiser Oil Co., C. Nichols 1	¶1¼	....
Promfrett 1	¶2¾	....
W. E. Elliott 1	¶2	....
Vinton County—		
Kastler & Co., J. & M. Curran 1	2	....
J. & M. Curran 2	2	....
Lorain County—		
Logan Gas Co., J. A. Reisling 1	¶1	....
Chemical Oil Co.'s Rose Adams 1	¶1¼	....
Coshocton County—		
Roy Dairy & Co., C. E. Moore 1	20	....
Cassingham & Bell Bros., Cassingham 15	¶½	....
Fairfield County—		
Roy Nixon & Co., F. M. Kittle 1	*	....
Perry County—		

NORTHWESTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Sandusky County—		
Harley, Henderson & Co., William Doll 5	5	1347
Ohio Oil Co., J. H. Myers 11	6	....
Talbert & Haubert, Martha Talbert 7	10	1309
Allen County—		
I. B. Post & Co., J. Lenney 1	35	1371
C. A. Peavey & Co., Samuel H. Vore 7	15	1355
Shelby County—		
Wittmer Property Trustee, M. Zimmerman 3	25	1328
L. A. Watson, Jennie Monnin 4	5	1281
Hardin County—		
Hardin Oil & Gas Co., A. Zimmerman 6	50	1486
Hancock County—		
Discus & Kirk, Discus 1	20	1400
Wood County—		
Oko Oil & Gas Co., Mrs. M. Heilman 1	14	1287
Mercer County—		
Hays & Beaty, Bollenbacher 4	*	1115
Wyandot County—		
Ohio Oil Co., G. Tong 1	*	1618

INDIANA

Company, Well and Location	Initial Production Bbls.	Depth
Pike County—		
A. B. Bement & Co., Charles McAtee 1	10	967
Murphy Oil Co., Stewart Bros. 6	20	1327
Ohio Oil Co., A. H. Johnson 2	¶1¼	1290
Daviess County—		
Geiger Oil Co., Frank Gaither 6	5	982
Peek Oil Co., J. M. Peek 5	*	1176
Blackford County—		
Montpelier Dev. Co., A. Gerard 2	1	....

ILLINOIS

Company, Well and Location	Initial Production Bbls.	Depth
Wabash County—		
J. S. Young Jr. & Co., Joseph Keyser 1	170	1449
Alka Heirs 3	20	1401
Mayhugh & Co., Kogan Heirs 7	25	1470
Eastern Gulf Oil Corp., Jesse Cisil 3	10	1568
Healey, Lee & Co., Christ Frick 2	*	1590
Roberts & Co., William Shaffer 1	*	1600
Clark, Miller & Co., W. M. Crump 1	*	1855
Crawford County—		
Clark County—		
Thomas Flynn & Co., J. P. Sager 10	30	960
John Phipps & Co., D. Reaville 6	6	967
Peoples Bank & Trust Co., Si Wilkins 4	*	1020
Fred L. Hartman & Co., A. J. Vaught 1	*	1865
Ohio Oil Co., A. Cavolt 5	10	1497

MICHIGAN

Company, Well and Location	Initial Production Bbls.	Depth
Saginaw County—		
Ohio Oil Co., Mershon-Eddy-Parker lots 1	25	1816
The Sun Co., John Schoenteit 2	20	1838
Murrin & LaCroix, Henry Owen 1	*	2092
Joseph H. Shaltry & Co., Fred Pagel lots 1	*	1885
Bay County—		
J. Hendricks & Co., Leonard Gearinger 1	*	2058

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WILDCATS FROM ALL SECTIONS

Eastern States Wildcats

FLORIDA

OKEECHOBEE COUNTY — Preston & Gaines, Opal District, sec 22-36-35, four miles north of Okeechobee City, rig.

MONROE COUNTY—Biscayne Oil & Gas Co. of Miama, rig in township 35, range 34. Florida Natural Resources Co., rig in section 6-51-31.

PASCO COUNTY—Unknown in parties drilling on Green lease, north of Tarpon Springs, sec 20-25-16 east.

HERNANDO COUNTY — Unknown parties drilling on the Ayres land, near Brooksville, sec 20-23-17.

LEON COUNTY—Gulf Development Corp. drilling on Rhodes land, near Woodvilles, sec 11-25-1 East.

DADE COUNTY—Miami Oil & Natural Gas Corporation, drilling west of Miami on Tamiami Trailtin sec 19-54-35.

MANATEE COUNTY—Speedwell Pet. Synd. starting well on Robinson land, sec 15-34-17.

JEFFERSON COUNTY—Southern States Oil Corp. drilling on Millen-Cossad lands, sec 19-2n-5e.

GLADES COUNTY—H. McCurdy, drilling on Brewton land, sec 15-39-32. Langford and Co., drilling in sec 5-38-32. Seminole Pet. Corp. drilling in sec 3-38-32.

POLK COUNTY—West Frostproof Land & Oil Co., drilling near West Frostproof, in sec 4-3-27.

TENNESSEE

CLAY COUNTY—Owens, Long & Co., No. 1 G. M. Gamewell, Lillydale area; No. 1 Meyers in Fox Springs area, drilling. Leech, Hunt & Co., drilling near Timothy. Mendenthall & Co., No. 1 Potter, Turkey Creek area, drilling. Lewis & George, drilling No. 1 George Tinsley, near Celina, and John B. Kerr drilling No. 1 George Plumley, same area.

KENTUCKY

McCRARY COUNTY—Asher, Sampson & Co., No. 1 on Pleasant Run Creek, dr. McCreary Oil & Gas Co., near Tennessee line, dr.

CARTER COUNTY—R. A. Chiles No. 1 Hi Owens, on Smokey Creek, dr. Robbins & Watson, on Trough Camp Creek, dr. Hovis, Young & Marcum, Carpenter land, at Limestone, dr.

JACKSON COUNTY—Standard Oil of Ky. No. 1 Isaac land, near McKee, dr.

LAUREL COUNTY—Standard Oil of Ky. wildcat 10 miles southwest of London, dr.

MENIFEE COUNTY—McKinney Bros. on Widow Reed land, near Leatherwood, dr.

ELLIOTT COUNTY—J. M. McDonald No. No. 1, J. Wagner land, on Lincoln Creek, dr. Eastern Gulf Oil Corp. No. 1 Henderson, on Rocky Branch, dr.

KNOX COUNTY—Petroleum Exploration Co. No. 1 Helton, on Indian Creek dome, dr. Beattyville Capital on Red Bird Creek, dr. Foreman Lumber Co., No. 1 Foreman, on Sinking Creek, dr. Dizney & McKee No. 1 Dizney, at Bailey Switch, dr.

CHRISTIAN COUNTY—Petroleum Exploration Co., No. 1 W. E. Denton, dr.

GRAYSON COUNTY—Robinson & Co., No. 1 Jones, dr.; No. 1 Carvill, dr. Chenault Bros. No. 1 George Kenser, near Leitchfield, dr.

CLINTON COUNTY—Owens, Long & Co., No. 1 Jane Scott, near Lillydale, dr. Ewing & Delaney No. 1 Shepler heirs, dr.

CUMBERLAND COUNTY—Raydure & Son No. 1 T. B. Hogan, on Pulsey creek, dr. Graves Bros. & Co., No. 1 J. Jones, on Kettle Creek, dr. Wilcox Bros. No. 1 Davidson, on Sulphur Creek, dr. J. E. Bollinger No. 1 Sadue Bledson, on Crocuc Creek, dr. Crawford & Co., No. 1 Jackman, same area, dr. Phillippi & Co., No. 1 Patters, same are, dr.

OWENSBORO FIELD—Wood Oil Co., No. 1 Owens-Drane, dr. Chrysler & Co. No. 1 Pegram, dr. White Plains Oil & G. Co., No. 1 Ira Howard, dr. Petroleum Exploration Co. No. 1 William Howard, dr. Ohio Oil Co. No. 1 Daby, dr; No. 1 Lonzo Crowe, dr. Ellis & Courson No. 1 A. Martin, dr. Boyles, Powers & Co., No. 1 Pegram, dr.

Rocky Mountain Wildcats

WYOMING COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Emigrant Gap—		
Bradford-Wyoming Oil Co.'s No. 1	*	2690

COLORADO COMPLETIONS

Prowers County—		
Chesapeake Oil Co.'s No. 1.....	*	5025
Freemont County—		
Gate City Oil Co.'s No. 1	140	2150

NEW MEXICO COMPLETION

San Juan County—		
New Mexhoma Oil Co.'s No. 2	*	975

WYOMING DRILLING REPORT

Marland Oil Co. of Colorado's No. 1 Wilson dome, SW¼ 32-38-83, dr 1460 ft. Bradford-Wyoming Oil Co.'s No. 1, Emigrant Gap, 23-34-82, abn 2690 ft. Harris-White Co.'s No. 3, Pine Mountain, dr 600 ft. Criterion Oil Co.'s No. 1 Douglas, NE¼ 5-31-70, dr 3016 ft. Osage Drilling Co.'s No. 1, Burris structure, 28-42-79, preparing to dr, td 3306 ft. Carter Oil Co.'s No. 2, Billy Creek, SW¼ 21-48-82, dr 2620 ft; No. 1, Nowood, 5-48-90, dr 650 ft; No. 1, Horse Creek, NW¼ 35-17-70, dr 1728 ft. Utah Oil Ref. Co.'s No. 1A, Black Mountain, 5-42-90, dr 690 ft; No. 2W, Black Mountain, 35-43-91, dr 1068 ft; No. 1F, Black Mountain, 26-43-91, dr 1478 ft; No. 2S, Black Mountain, 36-43-91, lcn; No. 3S, Black Mountain, 36-43-91, dr 355 ft. Ohio Oil Co.'s No. 3, Hidden Dome, 31-48-90, dr 2780 ft; No. 2, Byron, 33-56-97, dr 500 ft; No. 3, Lance Creek, 4-35-65, dr 1500 ft. Continental Oil Co.'s No. 1, Geary Dome, 32-34-77, sd 2990 ft, td 4797 ft. Producers & Refiners Corp.'s No. 1, St. Mary's, 14-21-84, dr 238 ft; No. 17, Ferris, 25-26-87, sd 2450 ft; No. 1, Murphy dome, 8-43-91, dr 2075 ft; No. 1, Baxter Basin, 11-19-104, dr 1900 ft; No. 1, Greenville, 28-21-86, sd 665 ft; No. 2, Clay Basin, 22-3-24, dr 5400 ft; No. 2, Garland, 24-56-98, dr 1802 ft; No. 1, Crook's Gap, 18-28-92, dr 2740 ft; No. 2, Crook's Gap, 13-28-93, sd 3340 ft; No. 3, Crook's Gap, 13-28-93, sd 2701 ft. Union Oil Co. of California's No. 1C, Fremont County, NE¼ 15-5-1, dr 1930 ft; No. 1G, Fremont County, SE¼ 27-1-1, dr 302 ft; No. 1S, Fremont County, SW¼ 10-28-92, dr 3680 ft; No. 1A, Black Mountain, NW¼ 34-43-91, dr 875 ft; No. 1A Black Mountain, NW¼ 34-43-91, dr 1890 ft; No. 1, Park County, NE¼ 9-46-101, dr 500 ft. Prairie Oil & Gas Co.'s No. 2, Buffalo Basin, 17-27-95, ur 2480 ft; No. 1, Gooseberry, 32-47-100, co 3450 ft. Midwest Refining Co.'s No. 1, Elk Basin, SE¼ 31-58-99, sd 1850 ft; No. 1, Dutton Creek, SE¼ 1-18-28, dr 4880 ft; No. 2, Notches, SW¼ 3-27-85, dr 1901 ft.

COLORADO

Erdmand Drilling & Producing Co.'s No. 1, Red Mesa, 23-33-12, sd 3405 ft. Marland Oil Co.'s No. 1, Moffat County, 16-3-91- dr 1180 ft. Chesapeake Oil Co.'s No. 1, Prowers County, 30-27-45, abn 5025 ft. Gate City Oil Co.'s No. 1, Fremont County, 35-18-70, comp. as 140 bbl. well, td 2150 ft. Francisco Drilling Corp.'s No. 3, De Beque, 21-8-97, dr 450 ft. Caddoa Oil Co.'s No. 1, Bent County, 13-23-50, dr 1425 ft. Midwest Refining Co.'s No. 2, Rio Blanco County, 30-2-102, dr 1178 ft; No. 4, Moffat County, 22-4-92, salt water, td 2300 ft. W. H. Hall's No. 1, La Plata County, 13-33-12, sd 3568 ft. W. Franklin's No. 1, Archuleta County, SW¼ 28-35-2, dr 1426 ft. Repollo Oil Co.'s No. 1, Boulder County, 33-1-70, dr 3940 ft. Union Oil Co. of California's No. 2L, Wellington, 19-9-68, waiting on fsh tools.

NEW MEXICO

Maljamar Oil & Gas Co.'s No. 1, Lea County, 5-17-32, sp. Southwestern Drilling Co.'s No. 1, San Juan County, 24-31-11, dr 900 ft. Congress Oil Co.'s No. 1, San Juan County, 34-29-11, fsh 1665 ft. Decum Development Co.'s No. 1, Eddy County, 5-17-28, salt water, td 2350 ft. Santa Fe Pet. Co.'s No. 3, San Miguel County, 3-13-15, dr 720 ft. Aztec Pet. Co.'s No. 1, San Juan County, 9-30-11, sd 155 ft. Red Feather Oil Co.'s No. 1, Colfax County, 10-28-26, dr 810 ft. Union Oil & Mining Co.'s No. 2, San Juan County, 8-29-9, fsh 1665 ft. Gibson Oil Corp.'s No. 1, Chaves County, 8-11-23, dr 738 ft. Marland Oil Co.'s No. 1, McKinley County, 4-15-6, dr 240 ft. Skelly Oil Co.'s No. 1, Eddy County, 23-3-13, New Mexhoma Oil Co.'s No. 2, San Juan County, 9-30-11, abn 975 ft. Pinos Wells Oil Corp.'s No. 2, Torrance County, 23-3-13, dr 600 ft.

Southern California Wildcats

BELLFLOWER—Marine Oil Corp.'s Strong 1, dr 4200 ft.

BURBANK—B. J. Jeffries' No. 1, dr 1300 ft.

BIXBY HILLS—National Security Co.'s No. 1, sd 5151 ft.

CLEARWATER — Featherstone - Preston's Blinn 1, dr 3145 ft.

CLAREMONT—Claremont Oil & Gas Co.'s No. 1, co 1070 ft.

EAGLE ROCK—Calwin Oil Co.'s No. 1, dr 6025 ft.

EL SEGUNDO—Rider Oil Synd.'s No. 1, dr 1650 ft. Union Oil Co.'s Howland 1, dr 4945 ft.

HAWTHORNE — Winwell Oil Co.'s Dome 1, sd 5580 ft.

LAWNDALE—Smith Pet. Co.'s Johnson 1, dr 3560 ft.

IRVINE—Calny Oil Co.'s Irvine 1, sd 4247 ft.

INGLEWOOD — Associated Oil Co.'s Cypress 1, dr 3200 ft.

LANCASTER—Rudd-Asmussen's No. 1, co 1635 ft.

LONG BEACH—Miller & Haley's West Extension 1, dr 4645 ft.

MANHATTAN—Julian Pet. Corp.'s Hellman Trust 1, dr 5632 ft.

MAYWOOD—Magnolia Pet. Synd.'s Tweedy 1, sd 4442 ft.

NEWHALL-SAUGUS—W. W. Stabler's Castaic 1, dr 2100 ft. Union Oil Co.'s Saugus 1, dr 3466 ft.

PACOIMA—W. O. Brubaker's Fernando 1, reaming 1250 ft.

PLAYA DEL REY — Milham Exploration Co.'s No. 2, dr 6008 ft.

PUENTE—Barnsdall Oil Co.'s Merlo 1, dr 4300 ft.

RESEDA — Petroleum Securities' Sesnon 1, dr 3420 ft.

SPADRA—Spadra Oil Co.'s Northey 1, dr 425 ft.

SAN FERNANDO—Standard Oil Co.'s University 1, dr 3765 ft.

SAN JOSE HILLS—Bardeen Oil Co.'s Didier 3, sd 1938 ft. D. & B. Oil Co.'s Amar 1, dr 2700 ft.

SAN JUAN CAPISTRANO — A. P. & K. Synd.'s No. 1, sd 2135 ft. California Pet. Dev. Co.'s No. 1, dr 1200 ft.

TELEGRAPH CANYON—Quadra Pet. Co.'s M. J. & M. 1, fsh 3668 ft.

TOPANGO CANYON—Standard Oil Co.'s Austin 1, dr 1200 ft.

VAN NUYS — Van Nuys Community Oil Co.'s No. 1, sd 3701 ft.

DUNN TOOLAGRAM

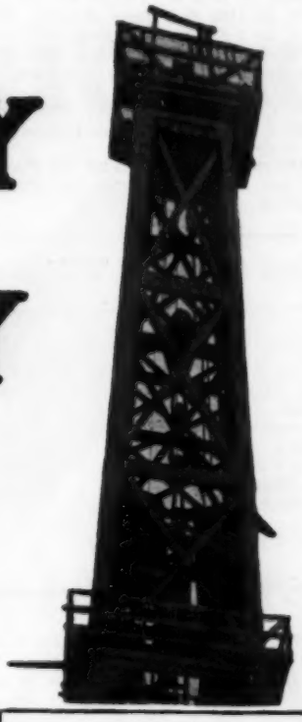
OIL WELL DUNN TOOLS

For perfect safety, under all conditions of service it must be Dunn.

DUNN SAFETY *means* DONE SAFELY

It is quite significant that Dunn Super-Safety Rotary (No Bushings) Tongs, and Dunn Super-Safety "Rotary Flyer" Elevators were used to drill the deepest well in the world—the Chanslor-Canfield-Midway Oil Company's (Santa Fe) Well No. 96, Olinda, California, down 8034 feet, August 27, 1926. At such depths the factor of safety is paramount. It must be absolutely assured. Thousands of dollars worth of equipment, the entire investment, and many lives are balanced upon the proper and perfect performance of an elevator, and its strength.

No greater evidence of worth can be submitted than superb performance in severe and hazardous service.



The C. C. M. O. Co.'s (Santa Fe) Well at Olinda, California. "The Deepest Well in the World." Depth, 8034 feet, August 27, 1926, and still going strong.

DUNN
MANUFACTURING COMPANY
OXNARD, CALIFORNIA

Mid-Continent Branch Warehouse
309 West First St. Tulsa, Oklahoma

Export Sales Office
150 Broadway, New York City

Dunn Super-Safety Rotary Tongs on the pipe, C. C. M. O. Olinda Well.

Dunn Super-Safety "Rotary Flyer" Elevator in fully open position.

Dunn Super-Safety "Rotary Flyer" Elevator on the pipe, rear view.

Say you saw it in The OIL WEEKLY

RIVERSIDE COUNTY—Corona Oil & Gas Test's No. 1, sd 990 ft. Spindletop Oil Synd.'s No. 1, fsh 2580 ft. Trabuco Oil Co.'s No. 1, dr 1355 ft.

SAN BERNARDINO COUNTY — Arrowhead Dev. Co.'s No. 1, dr 1500 ft. Burgess-Goodale's Riggins 1, will plug 2600 ft. Como Oil Co.'s well, sd 1165 ft. Colton Terrace Oil Co.'s No. 1, dr 1108 ft. Dome of Chino Valley's No. 1, sd 1956 ft. Del Rosa Oil Co.'s No. 1, sd 2460 ft. Hesperia Oil & Gas Co.'s No. 2, making new hole 3244 ft. Mahaha Oil & Gas Co.'s No. 2, shut in 5080 ft. Rimer Oil Co.'s Tebo 1, perforated 709 ft; Rimer Oil Co.'s Smith 1, sd 140 ft. Wade-Bourne-Aldhal's Shoe 1, dr 450 ft.

SAN DIEGO COUNTY—Cardiff Oil Corp.'s No. 1, dr 600 ft. Pacific Coast Pet. Corp.'s No. 1, hauling material. .....

Northern California Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Rosedale—		
A. G. Schwartz' Rosedale	*	4825
Camarillo—		
Gentry Oil Corp.'s Camarillo	*	1298
Colousa County—		
Brown-Cockerill's Test	3	721

DRILLING REPORT

KERN COUNTY

ANTELOPE PLAINS—W. H. Davis' No. 1, sd cemt 260 ft. Union Oil Co.'s Theta 2, dr 880 ft.

DEVILS DEN—Devils Den Prod. Co.'s No. 4, sd cemt 680 ft. Devils Den Prod. Co.'s No. 5, fsh 510 ft. Marathon Oil Co.'s No. 1, trying to pull 4390 ft. Robins Oil Co.'s No. 1, will drill ahead 1850 ft.

FAMOSA—Woodward-Sheedy's No. 1, rigging up.

GOULD HILLS—Hall-Baker's No. 1, perforated 2185 ft. Mendocino-Midway's No. 1, co 1780 ft. Myrtle F Oil Co.'s No. 1, preparing to deepen 881 ft. L. E. Westrick's No. 1, rigging up.

TEMBLOR HILLS—Hovey Hills Oil Co.'s No. 1, sd 2510 ft. Fortuna Oil Co.'s No. 1, trying to exhaust water by pumping 2070 ft.

WASCO—Main Oil Co.'s No. 1, trying to pull cas 5303 ft. Main Oil Co.'s No. 2, sd 5273 ft.

BUTTONWILLOW — Milham Exploration Co.'s No. 1, rigging rotary.

EASTERN KERN COUNTY — Crusaders Oil Co.'s No. 1, dr 2229 ft. Crusaders Oil Co.'s No. 1, hole caving 670 ft.

ELK HILLS—Interstate Oil Corp.'s No. 1, sd 5156 ft. Naval Reserve Oil Co.'s No. 1, sd 3676 ft. North Elk Hills Co.'s No. 1, sd 4002 ft.

McKITTRICK FRONT — Lacy-Esper Pet. Co.'s No. 1, sd 3200 ft. Ridge Oil Co.'s No. 1, dr 3100 ft. Sisson-Wisdom's No. 1, sd 970 ft.

SUNSET—Bell-Wrightsman's No. 1, sd 5335 ft. Fresno-Sunmaid's No. 1, sd 4200 ft. King G. Gillette's No. 1, sd 2100 ft. General Pet. Corp.'s Blythe 1, dr 503 ft. Milham Exploration Co.'s No. 2, dr 1845 ft. Shell Co. of Calif.'s No. 1, dr 3700 ft.

CLOVIS—Fresno-Madera Oil Co.'s No. 1, sd 3760 ft. W. W. Taylor's No. 1, dr 1020 ft.

HURON—Associated Oil Co.'s No. 1, bldg rig.

RAISIN CITY — Fresno-United Oil Co.'s No. 3, sd 3490 ft.

KERMAN—Associated Oil Co.'s No. 1, sd 5735 ft.

KINGS COUNTY

KETTLEMAN HILLS — Bolsa Chica Oil Co.'s No. 1, dr 2300 ft. Marland Oil Co.'s No. 1, milling on fsh at 5160 ft. South Coalinga Oil Co.'s No. 1, dr 1335 ft.

CAMARILLO—Standard Oil Co.'s Camarillo 1, dr 2300 ft.

CASITAS-OJAI — Miley Exploration Co.'s Casitas 2, dr 565 ft. Rio Grande Oil Co.'s Canet 1, dr 1450 ft.

MOORPARK—Shell Co.'s Berlywood 1, dr 5667 ft.

PIRU DISTRICT—Bishop-Buckeye Union's No. 1, dr 1028 ft. Henderson Pet. Corp.'s Z27, dr 720 ft. Hopper Canyon Oil Co.'s Rehart 1, dr 5000 ft. S. H. Keougham's Newhall 1, dr out cemt 365 ft.

SESPE-FILLMORE — Gillette-Howard's Elkins-Grant 1, dr 4055 ft. Sespe Oil Co.'s Smith 1, sd 4003 ft. Sentinel Oil Co.'s Flats 1, sd 540 ft.

VENTURA—Associated Oil Co.'s McGonigle 1, dr 5113 ft. Associated Oil Co.'s W. L. W. Co.'s 1, reaming 3655 ft. Chanslor-Canfield's Hobson 1, dr 5835 ft. Milham Exploration Co.'s Sexton 1, sd 6017 ft.

SANTA BARBARA COUNTY

SUMMERLAND—Geo. F. Becker's No. 1, preparing to resume 2435 ft.

GOLETA—Miley Exploration Co.'s No. 1, bldg roads and grading.

ORCUTT — Standard Oil Co.'s Palmer U1, sd cemt 2820 ft. West Penn Prod. Co.'s Shields, re-dr 568 ft.

SAN LUIS OBISPO COUNTY — Arroyo Grande Pet. Co.'s No. 1, re-dr 3650 ft. Barneyberg Oil Corp.'s No. 1, co 4486 ft. Carlisle Oil Co.'s No. 1, sd 2680 ft. Elberta Midway Oil Co.'s No. 1, sd 3012 ft. Geo. Mapes, Inc.'s No. 1, sd 500 ft. Paso Robles Oil Co.'s No. 1, dr 675 ft. Waklin Pet. Co.'s No. 1, reaming 2435 ft.

MONTEREY COUNTY — Harriman-Jones Oil Co.'s No. 1, dr 4610 ft. Henigan-Schwenigan's No. 1, fsh 3050 ft. Pan-American Pet. Co.'s No. 1, dr 2277 ft. Pyramid Oil Producer's No. 1, dr 2745 ft.

TULARE COUNTY — Ducor Drilling Co.'s No. 1, trying to pull 6¼-inch 4161 ft. Federal Exploration Co.'s No. 1, will dr out Sept. 1, 1958 ft. Martin Pet. Co.'s No. 1, milling on 8¼-inch 1401 ft.

YOLO COUNTY—San Martinez Oil Co.'s No. 1, dr 6203 ft.

SONOMA COUNTY — Shell Co.'s Murphy No. 1, dr 2355 ft.

COLOUSA COUNTY — S. H. Keoughan's No. 2, dr 3705 ft.

Oklahoma Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Beckham County—		
W. R. Duke, McGee 1, NWc SW SE 25-8-22	*	1070
Kadane et al, Van Vester 1, SEc NE NE 25-8-22	*	1810
Cotton County—		
W. B. Lindsey, Cooper 1, SE NW 12-4-10	*	2500
Comanche County—		
Becker & Reed, Hind 1, NEc NW 30-4-10	*	2513
Kay County—		
Davis Drilling Co., Street 1, C NE NE NE 31-28-3	*	3907

DRILLING REPORT

BECKHAM COUNTY—Magnolia's No. 1, NWc 21-9-23, lcn; No. 1, NEc SE NE NW 22-9-23, rig and tools.

BLAINE COUNTY—Okama Oil Co.'s Eklemeir 1, SWc 21-25-10.

CADDO COUNTY — W. J. Hartley's Galbreath 1, SEc NW SE 29-5-12, dr 3110 ft. Abernathy, No. 1, C NE NW 8-5-11, lcn. Abernathy, No. 1, C SW NW 23-5-11, sd 160 ft.

CANADIAN COUNTY — Thos. Revelle's Dawson 1, NEc SE NW 34-13-9, ur 5-inch at 3680 ft. Hannum, Frank & Slick's Pazoureck 1, SW NE 29-13-5, cement 8-inch 3741 ft.

CLEVELAND COUNTY—Schermerhorn et al's Carlock 1, NW NW 2-6-1.

CIMMARRON COUNTY — Ramsey Bros.' No. 1, C NW NE 27-5-5, dr 465 ft. Fenton, Bookins et al's Smaltz 1, SEc NE NE 2-2-9, spd.

COTTON COUNTY—J. A. Heacock et al's John 1, NWc NE 21-1-10, sand 2422-27 ft, sd.

COMANCHE COUNTY — Hambro et al's Ritchie 1, NWc SW 19-2-9, 8-inch 1170 ft, std. Mid-Kansas O. & G. Co.'s Cox 1, NEc SE NE 30-1-13, dr 1838 ft.

GARFIELD COUNTY — Wilcox O. & G. Co.'s Zalondek 1, C SE SE SE 22-24-6, dr 4298 ft. Sinclair's Meyers 1, C SE NE 11-24-4, dr 3165 ft. Shaffer & Amerada's Bunker 1, NEc 32-24-4, dr 4350 ft. Haley, Garber & Pulse's Chevelier 1, NWc SW 6-23-4, dr 3475 ft. Bu-Vi-Bar's Johnson 1, SWc 31-23-4, ts 3965 ft, dr 3990 ft, hfw. Sinclair's Fee 1, SWc SW NE 2-20-5, dr 4250 ft.

GRANT COUNTY—Ostot Dev. Co.'s Snyder 1, NEc 6-28-4, sd, td 4102 ft. Brazell & Moses' Royce 1, SWc NW 34-26-4, sd 550 ft. Dedman, Flannagan & Hennage's Sherrer 1, NEc SW 16-26-3, sd 1910 ft. Gypsy Oil Co.'s Meugge 1, SEc NW 33-26-3, show td 5408 ft, pulling 5-inch to run 4¾-inch.

HUGHES COUNTY—Sand Pet. Co.'s Harnage 1, C SE SE SE 10-8-9, dr 3106 ft. Magolia's Meadors 1, NWc SW 28-8-9, sd 2130 ft. Sorry and Swartz's Wallace 1, SEc NW SE 4-8-11, dr 2955 ft. Johnson et al's Bear 1, SWc SE NW 32-8-11, dr 3720 ft.

KIOWA COUNTY—A. C. Warner's No. 1, NWc SE NW 34-7-19, lcn; Bonham 1, SEc SW NW NW 5-6-18, 8¼-inch to 1127 ft.

KINGFISHER COUNTY — Marland Oil Co.'s No. 1, SWc NW 12-18-5, dr 3770 ft. Pet. Eng. Core Drilling Co.'s Canfield 1, C NW SE 6-16-7, core dr, td 625 ft. McKenna & Crawford's Sturgeon 1, NEc SW 27-16-6, ur 12-inch to 1194 ft. Hoffman et al's Otis 1, NWc NE 20-15-8, rig. Chicago Oil Co. et al's Creaves 1, SWc SE 17-16-6w, sd 2600 ft. Reiter & Foster's Davidson 1, SWc 23-15-5, rig.

KAY COUNTY—Tom Palmer et al's Barclay 1, NEc NW 28-26-1, dr 2815 ft. Ponco Lee Oil Co.'s McNeal 1, NE 32-26-2, fsh 8-inch cas 2360 ft. Tonkawa Dev. Co.'s McDaniels 1, C SE SE SE 15-25-1, sd 1140 ft. Marland Oil Co.'s School land 1, NEc NW 13-25-2.

LINCOLN COUNTY — Wentz Oil Corp.'s Lukenbeal 1, SWc SE 34-17-2, ru st at 2431 ft. Mid-Kansas Oil & Gas Co.'s Griswold 1, NEc NW 33-17-4, cement 8¼-inch at 3673 ft. Olean Pet. Co.'s Morris 1, SEc NW NE 18-16-4, cement 8¼-inch at 3686 ft. Wilcox O. & G. Co.'s Lillibridge 1, NEc NW 25-15-3, sd 4394 ft. Phillips Pet. Co.'s Williams 1, NWc SW NE 33-13-4, dr 4365 ft.

LOGAN COUNTY—Bryan & Emery's Scott 1, NWc SE 33-19-4, sd, td 1660 ft. Carter Oil Co.'s Rogers 1, SWc NW 32-19-3, dr 3588 ft. Franklin Oil Assn.'s Moore 1, SWc SE 28-18-4, sd, td 3913 ft. Santrock Drilling Co.'s Mathews 1, SW NE 11-18-3, rig. Haley & Pioneers' Quair 1, SEc SE 11-18-3, td 1906 ft, rig burned. Zingery et al's Baker 1, NWc NE 5-17-1, dr 2710 ft. T. B. Slick's Berry 1, SWc SE 28-17-1, cement 10-inch 2399 ft. Blackford O. & G. Co.'s Lair 1, C S L N½ SE 28-16-1, sd 1675 ft, litigation.

PAYNE COUNTY—Twin State Oil Co.'s Tibler 1, NEc NW NE 23-18-1, dr 895 ft.

LOVE COUNTY — Schermerhorn-Ardmore's Dillard 1, SEc NE NW 25-6-2, dr, td 3456 ft.

NOBLE COUNTY—Geo. Miller's 101 Ranch 1, NEc 1-24-1, show 4130-35 ft, dr 4168 ft. Independent's Miller 1, SEc NE SE 9-24-1, set 6-inch cas 3500 ft.

OKFUSKEE COUNTY — T. A. Johnson's Leedy 1, NEc SE SE 25-12-9, rig. J. M. Kessler's Scott 1, SWc 8-12-11, rog. J. W. McCullough's Carolina 1, NE NW SE 17-10-9, 10 million cubic ft gas 3381-89 ft, so. R. W. Vierson et al's Barnett 1, NWc SW NE 21-10-11, td 2140 ft, co.

POTTAWATOMIE COUNTY — Shaffer et al's Ives 1, NEc SE SE 12-10-3, ru st 3620 ft, sd. McCullough's Madgett 1, NWc 25-10-4, td 3940 ft, co cave. Tidal Osage's Kenyon 1, SWc SE SE 3-8-4, run 6-inch 3650 ft. Davis Detrick's McGathy 1, SEc NW 10-6-3, fsh tools 4550 ft. Croston et al's Hibbard 1, NWc NE SE 20-6-4, sd, td 4009 ft. Magnolia's Fyke 1, NWc NW 20-7-5, dr 2895 ft.

SEMINOLE COUNTY — Barnsdall's Sullivan 1, NEc SW 10-9-5, show oil, dr 4335 ft. Carter Oil Co.'s Harjocke 1, NEc NW NW 26-10-6, dr 2020 ft. Superior Oil Co.'s Noble 1, SEc SW SW 10-9-6, ur 10-inch td 2208 ft. Pure Oil Co.'s Jonah 1, C E L NW NE 15-9-7, td 2936 ft, 6-inch 2865 ft, co. Champlin & Bass' Sewell 1, NE SE SW 15-8-8, std cement 8-inch 2435 ft. Magnolia Pet.'s Strother 1, SEc NW 17-8-6, dr 1655 ft. Empire G. & F. Co.'s Litka 1, SWc SW 3-7-6, dr 3057 ft. I. T. I. O. Co.'s Litka 1, C NE NE 9-7-6, fsh 2639 ft. Magnolia's Jackson 1, SWc NE 22-7-7, dr 2350 ft.

TILLMAN COUNTY—Barnsdall's Dixon 1,

Here's the tool that will do your hardest fishing job!

LE BUS WALL HOOK OVERSHOT

As efficient as it is simple — as strong as it looks.

A Le Bus Product

Le Bus Guaranteed

Made in all sizes with especial attention to special sizes.

Packing off ring and backing off slips furnished on request.

Ready for immediate delivery.

Write for literature

LE BUS PATENTED OIL WELL TOOLS

LeBUS Automatic Cathead
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AT YOUR DEALERS

MANUFACTURED BY THE

LE BUS ROTARY TOOL WORKS

ELECTRA, TEXAS

Say you saw it in The OIL WEEKLY

C NW SE 8-4-18, rotary rig. Oasis Drilling Co.'s Snelling 1, SEc SE SE 13-1-18, sd 1525 ft. Landfair et al's Greeves 1, C S½ SW SE 6-2-16. Tipton et al's Riverbed 1, SEc NW NE 1-5-15, dr 3435 ft. Magee et al's Berry 1, NEc SW 4-5-14.

TEXAS COUNTY—Valerius O. & G. Co.'s No. 1, NWc SW 18-3-12, td 2266 ft, co and dr; No. 2, SEc SE 32-5-12, td 3521, hfw, sd. H. F. Wilcox's Zea 1, SWc SE 29-3-12, td 3045 ft, fsh tools; Hovey 1, SEc SE 21-4-14, rep rig, td 3455 ft. Foster-Reiter's No. 1, SEc SW 9-3-15, sd 2740 ft. Haley, Garber & Pulse's Ellison 1, NWc SE SE 4-1-12, dr 1250 ft. Reiter-Foster's Kugle 1, C NE 10-2-11, dr 2435 ft. Connell et al's Tansey 1, SEc NW 5-1-19, spd 60 ft, sd.

Kansas Wildcats

BARBER COUNTY—Skelly et al's Richardson 1, SWc 30-30-14, ur 4305 ft. Vickers Pet. Co. et al's Ott 1, SWc 30-32-14, sd 4108 ft. R. B. Brown's Martin 1, NWc 14-34-11, sd 1500 ft. Shaffer O. & G. Co.'s Alexander 1, C S E 13-33-13, ur 2750 ft.

BARTON COUNTY—Huffine et al's Smith 1, NE SE NE 17-19-11, fsh 5100 ft.

COWLEY COUNTY—Branson et al's White 1, SEc SW SW 7-30-6, sd 1560 ft.

KINGMAN COUNTY—Phillips Pet. Co.'s Hempel 1, C SE 9-27-6, dr 2745 ft. Harwood & Winters' Lindholm 1, C NE 22-28-5, sd 3708 ft. Crawford and McKenna's Beshere 1, NEc NW 31-28-5, ur 6-inch 4000 ft. Marland Oil Co.'s Padgett 1, NEc SW 11-28-6, dr 2710 ft. Fleeger et al's Greenleaf -, NEc 13-28-7, dr 3450 ft. Cassody Oil Corp.'s Yeoman 1, C SE 35-28-7, dr 3820 ft. Phillips Pet. Co.'s McKenna 1, C NW 16-28-6, fsh 4015 ft. Ozark Drilling Co.'s Richards 1, SEc NE SW 4-30-6, sd 4252 ft. Vickers & Stearns' Keimig 1, C NW 35-30-9, dr 3280 ft.

LYON COUNTY—Culp et al's No. 1, SWc SE 25-19-10, rig. Cashe & Balliere's Stratton 1, SEc NW 32-20-13, fsh 1430 ft.

RENO COUNTY—Sheldon et al's Manguson 1, SEc NW 10-23-4, dr 2650 ft. Marland Oil Co.'s O'Neil 1, C SW 7-23-6, cellar. Fleeger et al's Neeley 1, SEc NW 35-23-7, dr 1630 ft. Miss. Valley Oil Co.'s Pexroad 1, SEc NW 25-23-7, fsh 3703 ft. Cassody Oil Co.'s High 1, C SE 9-25-7, dr 3265 ft. Frank Hopper's Stevens 1, NWc 7-26-7, sd 4294 ft.

RILEY COUNTY—Pawnee Oil & Gas Co.'s Marke 1, SWc NE NW 26-10-6, sd 2400 ft.

RUSSELL COUNTY—Mid-West's Dortland 1, SE SE NW 5-12-5w, dr 500 ft. Keys Pet. Co.'s Sloan 1, C SE SW SE 2-13-15, dr 400 ft.

SUMNER COUNTY—Stalling et al's Rice 1, C NE NE NW 3-32-2, dr 2935 ft.

Louisiana Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Caddo Parish—		
Gulf Ref. Co.'s Muslow 1, 35-21-15	*	4963
De Soto Parish—		
Peer Oil Corp.'s Williams 1, 28-13-13	*	3000
Grant Parish—		
Humble O. & R. Co.'s Edenborne A-1, 30-9-2w	*	2506

DRILLING REPORT

BIENVILLE PARISH — Collins & Woodley's Thomas 1, 23-16-10, dr 1670 ft.

BOSSIER PARISH — Collins & Woodley's Antrim 1, 4-21-11, dr 2730 ft. Doern et al's Bolinger 1, 9-22-11, sd 2662 ft. Herndon et al's Burkhalter 1, 17-18-11, dk. Tubbs et al's Jacobs 1, 26-20-13, rig.

CADDO PARISH—Dixie Oil Co.'s Jolley 1, 27-22-15, dr 4265 ft. Gulf Ref. Co.'s Byrd 1, 2-19-14, dr 3705 ft. Magnolia Pet. Co.'s Bradford 1, 24-21-15, dr 3800 ft; Dillion 16, 24-21-15, dr 3570 ft; Dillion 17, 24-21-15, to set 6⅝-inch 3582 ft; Spell 1, 19-21-15, sd 3553 ft. The Texas Co.'s C. M. L. 42, 23-21-15, sw 3729 ft.

CALDWELL PARISH—Keisker & Simonds Meridith 1, 38-13-4e, water flow at 400 ft, td 1410 ft. Kinney & Jones' Shaw 1, 22-14-4e, dk. Robbins et al's Beazley 1, 10-11-4e, sd 1020 ft. Wright et al's Love 1, 16-11-2e, sd 1625 ft.

CLAIBORNE PARISH — Brown et al's Heard 1, 28-19-5, sd 2500 ft. Gilliland Oil Co.'s (Ramsey) Taylor B-10, 14-23-8, testing 35 degree oil 4630 ft. Gulf Ref. Co.'s Crichton 1, 35-19-8, dr 2305 ft. Triangle Drilling Co.'s Keen 1, 7-19-5, dr 4570 ft.

DE SOTO PARISH—Alden Oil Co.'s Powell 1, 13-11-10, sd 1197 ft. Craige & Montze's Thompkins 1, 27-14-13, rig. Dixie Oil Co.'s Jenkins 1, 9-12-11, dr 4570 ft. Magnolia Pet. Co.'s Bond 1, 27-12-11, dr 3930 ft. Snapp et al's Flores 1, 27-11-11, dr 1810 ft.

EAST CARROLL PARISH — Tip Snell's Abston 1, 24-19-12e, dr 650 ft.

GRANT PARISH—J. L. Holmes' Fee 1, 27-9-1e, sw 1630 ft. Humble O. & R. Co.'s L. & A. Oil Co. 11, 20-9-2w, lcn. J. J. Long's Calhoun 1, 4-7-4w, dr 880 ft. Tunica Pet. Co.'s L. & A. Oil Co. 8, 11-8-2w, lcn; L. & A. Oil Co. 9, 3-8-2w, lcn; L. & A. Oil Co. 10, 8-8-1w, dk. The Texas Co.'s Swope 1, 16-9-1e, dry with show of oil 1587 ft.

JACKSON PARISH—El Dorado Chief Oil Co.'s Jones 1, 3-14-4w, dr 1100 ft. Ferguson Trust's Martin 1, 5-15-1e, dr 2050 ft. Grigsby & Co.'s Adams 1, 22-17-4w, sd 1438 ft. Houseman et al's Norton 1, 34-15-3w, sd 400 ft. Louisiana Pet. Co.'s Theus 1, 20-16-3w, dr 2120 ft. Raymond et al's Davis 1, 13-16-2e, dk.

LA SALLE PARISH — Jena Oil Corp.'s White Sulphur 1, 23-8-4e, sd 103 ft. Tunica Pet. Co.'s L. & A. Oil Co. 4, 15-9-3e, dr 1970 ft; L. & A. Oil Co. 11, 26-9-3e, dr 830 ft; L. & A. Oil Co. 31, 25-9-1e, dr 50 ft.

LINCOLN PARISH — Arkansas Fuel Oil Co.'s Lincoln L. & S. Co. 1, 3-18-3w, dr 2400 ft. Buckley & Palmer's Davis 1, 12-20-3w, dr 2550 ft.

MOREHOUSE PARISH — Standard Oil Co.'s I. C. C. Co. 1, 34-21-8e, dr 1135 ft.

NATCHITOCHES PARISH — Brothers et al's Cockfield 1, 78-7-5w, dr 1195 ft. Davidson et al's Louisiana Long Leaf 1, 2-7-9, dk. Forrest Trust's Ayers 2, 3-13-7, dr 1840 ft. J. B. Greer's Louisiana Long Leaf 1, 6-5-7w, dr 2000 ft. Humble O. & R. Co.'s Reget 1, 85-7-16, dr 925 ft. McCormick et al's Russell 1, 41-10-7, rig. Ohio Oil Co.'s Louisiana Long Leaf 1, 20-8-8w, dr 905 ft. J. F. Palmers' Edenborne 1, 4-11-6, sd 2015 ft. E. Self's Fisher 1, 18-8-9w, rig. Weaver Bros. Fee 1, 4-7-7, dr 1395 ft.

OUACHITA PARISH—Ouachita NG&O Co.'s D'Arbonne 2, 25-19-2e, dr 2000 ft.

RAPIDES PARISH — Minnesota Oil Co.'s Wattermark 1, 7-5-3w, sd 600 ft. Pacnolik et al's Voda 1, 12-4-1e, dr 470 ft. Seip et al's Ball 1, 41-4-2w, dr 500 ft.

RICHLAND PARISH—Gulf Ref. Co.'s England 1, 32-17-6e, lcn; Weyman 1, 23-18-8e, dr 2120 ft. Louisiana Pet. Co.'s Hicks 1, 22-17-6e, set 12½-inch 112 ft. Roxana Pet. Corp.'s Tensas 1, 3-14-5e, rig.

SABINE PARISH—Emlet et al's Bowman-Hicks 5, 8-7-12, rebuilding dk 4070 ft; Bowman-Hicks 7, 11-7-14, sd 1607 ft; Sabine Lumber Co. 1, 8-7-1e, dk. Godchaux et al's Mills 1, 12-4-13, set 10-inch 425 ft. Magnolia Pet. Co.'s Louisiana Long Leaf 1, 16-6-11, dr 425 ft.

TENSAS PARISH — Spencer & Rhodes' Somerset 1, 29-14-12, dr 2460 ft.

UNION PARISH—Arkansas Fuel Oil Co.'s Reeves 1, 14-20-1e, dr 4370 ft. Camette et al's Tugurie 1, 21-22-1e, dk pat. Clark Pet. Co.'s Frost-Johnson 1, 18-23-1e, sd 2240 ft; Frost-Johnson 2, 8-23-1e, rig. Rhodes et al's Pickens 1, 22-22-2w, sd 2000 ft.

WEBSTER PARISH — Humble O. & R. Co.'s Cox 1, 22-21-10, milling 3959 ft. R. W. Norton's Josey-Massey 1, 27-21-10, fsh 4026 ft. Ohio Oil Co.'s Cox 1, 23-21-10, fsh 4600 ft. Palmer Corp.'s Fee 1, 30-20-8, dr 2215 ft. Smitherman & McDonald's Oakley 1, 29-23-11, set 4½-inch 4650 ft. Southern Crude Oil Purchasing Co.'s Munn-Wadley 1, 1-22-10, fsh 4620 ft.

WINN PARISH—Allen Drilling Co.'s Sanders 1, 21-13-2w, rig. Cedar Creek Pet. Co.'s Sullivan 1, 6-10-2w, sd 1700 ft. Hyde & Nelson's Louisiana Central Lumber Co. 1, 16-13-1w, dk pat. J. C. Long's Milam 1, 28-13-3w, dk. Ohio Oil Co.'s Edenborne 1, 4-12-1w, dr 1050 ft. Humble O. & R. Co.'s Edenborne C-1-A, 26-9n-3w, rig.

Arkansas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Clark County—		
Virgil Heath's Arnold 1, 12-9-20	*	829
Wheelen Oil Co.'s Brown 1, 25-10-20	*	2307
Columbia County—		
Kent & Fullenwilder's Wingfield-Moody 1, 18-19-19	*	2370
La Fayette County—		
The Texas Co.'s Colvin 1, 14-17-24	*	2800
Union County—		
Natural Gas & Fuel Corp.'s Cottrell 1, 28-18-12	*	3148
A. H. Stolz's Wait 1, 4-18-16	*	2235

DRILLING REPORT

ASHLEY COUNTY—Pine Prairie Oil Co.'s Pine Prairie 2, 1-17-16, hot sw 3650 ft. Rhodes et al's Bledsoe 1, 29-15-7, dr 2795 ft.

BRADLEY COUNTY—Magnolia Pet. Co.'s Arkansas Timber Co. 1, 35-15-11, dr 2400 ft. McMurray et al's Southern 1, 7-15-11, dr 2835 ft. Phillips Pet. Co.'s Southern Lumber Co. 1, 36-11-16, dk pat. Wingfield et al's (Yount) Southern Lumber Co. 1, 2-16-12, dr 1840 ft.

CALHOUN COUNTY — Delmar Oil Co.'s Gaibor 1, 16-11-14, dr 1935 ft.

CLEVELAND COUNTY — Kingsland Oil Co.'s Hall 1, 31-10-10, sd 1070 ft.

COLUMBIA COUNTY—Ky-Ark Pet. Co.'s Doss 1, 29-19-20, sd 2450 ft. Scott Phillip's Davis 1, 6-18-20, sd 2000 ft.

DREW COUNTY—McClintock et al's Ogle 1, 35-13-5, dr 2650 ft. Spooner et al's Myers 1, 4-16-7, sd 50 ft.

GRANT COUNTY—Jones & Watkins' Meek 1, 5-4-11, rig.

HEMPSTEAD COUNTY — Burton et al's Garland 1, 23-10-25, sd 1940 ft. Myers et al's Nicholls 2, 17-11-23, dr 2250 ft.

JEFFERSON COUNTY—Decem Oil Co.'s Hensley 1, 7-3-10, sd 2530 ft.

LITTLE RIVER COUNTY—Greeson et al's Waldrip 1, 4-13-21, dr 1480 ft. Grote et al's Allen 1, 2-13-29, sw 2932 ft. Johnson et al's Hawkins 1, 10-11-31, dr 1870 ft.

MILLER COUNTY—Gulf Ref. Co.'s Dorsey 1, 27-17-26, dr 2600 ft.

NEVADA COUNTY—Greeson et al's Tidwell 1, 22-13-21, sd 1200 ft. Humble O. & R. Co.'s Bodcau 4, 9-15-22, fsh 2714 ft.

OUACHITA COUNTY — Grayson et al's Reynolds 1, 21-14-17, dk. Phillips Pet. Co.'s Tatum 1, 9-14-17, ur 3132 ft. Reynolds et al's Cortier 1, 2-14-18, sw with show of oil at 1579 ft, to deepen. Van Diver et al's Yarbough 1, 22-14-17, ur to deepen, 1641 ft.

UNION COUNTY—Belmont et al's Hollis 1, 15-18-15, rig. Grimes & Jones' Van Hook 1, 8-18-14, lcn; Prothro 1, 3-18-15, dr 2535 ft. Imperial O. & G. Co.'s Goodwin 1, 26-17-16, to set 6¼-inch 2966 ft. Mathews et al's Lewis 1, 14-19-12, dr 2625 ft. Natural Gas & Fuel Corp.'s Cordell 1, 9-18-13, rig. Simms Oil Co.'s Simmons 1, 9-18-13, shut in 2605 ft. The Sun Co.'s Brown 9, 8-19-15, r 3675 ft. Walber et al's Cordell 1, 6-18-13, testing oil gas and salt water 2981 ft.

West Texas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Brewster County—		
Green Valley Oil Corp.'s J. P. Wilson 2	*	2175
Crane County—		
Gulf Prod. Co.'s J. T. McElroy 3	270	2818
Magnolia Pet. Co.'s University-O'Keefe 1	168	3051
F. P. Zoch & Marland Oil Co.'s Hughes-Keith 2	185	2351
Ector County—		
J. S. Cosden et al's Johnson 1	*	3605

DRILLING REPORT

ANDREWS COUNTY—Amon G Carter et al's Cowden 1, lcn. Maer-Staniforth et al's W. S. Taylor 1, lcn. Henry Zweifel et al's Means 1, lcn.

REX BEAM HANGER

TYPE "A"

THE NATIONAL SUPPLY COMPANIES

Say you saw it in The OIL WEEKLY

BREWSTER COUNTY—John Roseborough's Skinner 1, fsh cas 1005 ft.

COKE COUNTY—Lipan Oil Co.'s E. C. Rawlings 1, sd 2640 ft.

CONCHO COUNTY—Culbertson Bros. & Co.'s W. G. See 1, dr 660 ft. K. Kimberlin et al's Schultz 1, sd 1520 ft. The Exploration Co.'s Hartgrove 1, sd 430 ft. Eugene Mays et al's Wilson-Hartgrove 1, dr 710 ft.

CRANE COUNTY—Cranfill Bros. Co.'s P. J. Lea 1, elv. 2588 ft top salt 1075 ft, dr 2105 ft. Duffey Bros et. al's Cowden 1, rig. Bill Dunning et al's Crier-McElroy 1, top salt 958 ft, dr 990 ft. Gulf Prod. Co.'s University 1, fsh cas 535 ft; J. T. McElroy 2, top salt 975 ft, fsh two strings tools 2165 ft; McElroy 3, completed flowing 270 bbls 2818 ft; Crier-McElroy 1, top salt 990 ft, dr 2270 ft; Crier-McElroy 2, top salt 950 ft, top big lime 2660 ft, sd for storage 2670 ft; Crier-McElroy 3, top salt 965 ft, top big lime 2668 ft, dr 2680 ft; Crier-McElroy 4, dk. Independent O. & G. Co.'s Hughes 1, dr 130 ft. Magnolia Pet. Co.'s University-O'Keefe 1, elevation 2603 ft, top salt 1170 ft, top big lime 2893 ft, completed flowing 168 bbls 3051 ft; University-O'Keefe 2, lcn. Magnolia et al's University-Church 2, top salt 1165 ft, set 6⅝-inch cas 2792 ft; University-Church 3, lcn. Marland Oil Co.'s Hughes-Gibbs 1, top salt 700 ft, dr 1710 ft; Hughes 2-C, dr 570 ft; Hughes 3-C, rig; Hughes 1-D, top salt 665 ft, dr 995 ft; Gibbs 1, dr 400 ft. Prairie O. & G. Co.'s University 1 and 2, lcns. The Texas Co.'s Union 1-F, co with oil and water in hole 3016 ft; H. M. King 2, flowing by heads and dr pay 2301-50 ft; King 6, dr 300 ft; King 7, dr 360 ft. Tidal Oil Co.'s University 1, elevation 2585 ft, top salt 1135 ft, top big lime 2903 ft, flowing by heads 3013-38 ft. Henry Zweifel et al's Cowden 1, lcn.

CROCKETT COUNTY—The California Co.'s University 2, sd after shot 110 qts at 2646-90 ft, td 2728 ft. Cranfill Bros. Oil Co.'s Harris 1, lcn. Cumberland O. & G. Co. et al's Couch 1, dr 1560 ft. Gulf Prod. Co.'s Powell 1-D, spudding. J. K. Hughes Dev. Co.'s Powell 2-A, dr by tools 350 ft; Powell 3-A, dr 835 ft; Powell 2-B, dr 370 ft. Humble & Marland Oil Co.'s Powell 8-A, dr 2630 ft; Powell 10, dr 2635 ft; Powell 11, lcn; Powell 1-B, rig. Magnolia Pet. Co.'s J. M. Shannon 2, dk. Marland & H. Wallace's J. S. Pierce 1, lcn. Republic Prod. Co.'s Powell 1, dr 395 ft. Wm. Schaffer et al's University 1, sd 2191 ft. Simon et al's Shannon 1, sd making ¼ million ft gas 2378 ft. J. D. Young et al's Massie 1, dr 2095 ft. Young & Cromwell's Shannon 1, rig. F. P. Zoch & Marland's University 1, sd 2005 ft. Wilcox O. & G. Co.'s University 1, dr 2450 ft.

CULBERSON COUNTY — Big Lake Oil Co.'s Cass 1, rig. James H. Gardner et al's Radford et al 1, rig.

JEFF DAVIS COUNTY—Herbert Oil Co.'s T. M. Wingo 1, sr 6⅝-inch cas 3012 ft. Humble O. & R. Co.'s W. W. McCutcheon 1, dr 2625 ft. J. K. Hughes Dev. Co.'s J. Z. Means 1, sd 230 ft; Means 2, lcn.

ECTOR COUNTY — J. S. Cosden et al's Connell 1-A, elevation 2847 ft, top salt 875 ft, dr 2570 ft; Connell 1-B, elevation 2827 ft, top salt 1000 ft, top big lime 3390 ft, sd to abn, 3580 ft. The Exploration Co.'s TP Fee 1, top salt 1528 ft, dr 3170 ft. J. D. Slator 1, lcn. Llano Oil Co. et al's Cowden 1, top salt 1130 ft, dr 1360 ft. Simms Oil Co.'s W. P. Ewdards 1, elevation 2844 ft, top salt 1600 ft, fsh 2550 ft. F. E. Skinner & Eastland Oil Co.'s J. W. Buchanan 1, top salt 1330 ft, flowing salt water 3500-23 ft. Leigh Taliaferro & Wentz Oil Corp.'s Henderson 1, dr 1040 ft.

FISHER COUNTY—Ideal Oil Co.'s W. F. Martin 1, fsh 3070 ft.

GAINES COUNTY — Hucony Gas Co.'s Lindsey 1, dr 2230 ft.

GARZA COUNTY—Deep Rock Oil Co.'s S. M. Swenson 1, co 3065 ft.

GLASSCOCK COUNTY—Plateau Oil Co.'s L. S. Bell 1, rig.

TOM GREEN COUNTY—M. D. Bryant et al's Llano County Fee 1, dr by tools 2980 ft. World Oil Co.'s Pulliam 1, dr 2750 ft. Texon Oil & Land Co. & Marland Oil Co.'s Sorrell 1, rig.

HOWARD COUNTY — Joe Edgar et al's Roberts 1, ur 8¼-inch cas to test oil pay 1483-87 ft. Lockhart & Co. et al's Dora Roberts 1, co 655 ft; W. T. Scott 1, sr 8¼-inch cas 1561 ft; Otis Chalk 1-A, dr 690 ft. Magnolia Pet. Co.'s Mary Chalk 1, dr 350 ft; Otis Chalk 2, dr 1335 ft; Chalk 3, rig; Chalk 3, dr 1150 ft. Marland Oil Co.'s Chalk 2, swabbing 35 bbls oil 1387 ft. Reeves-Apperman et al's H. R. Clay 1, ur 10-inch cas 780 ft.

JONES COUNTY—Gibson-Johnson's Mrs. J. V. Wright 1, dk. Marland Oil Co.'s S. R. Cox 1, dr 1115 ft. Phillips Pet. Co.'s Joe Winters 1, ur 2260 ft. Gillette & Hickey's S. W. King 1, sd 1212 ft. Muse-Robertson et al's Manley 1, lcn. L. Taliaferro & Wentz Oil Corp.'s King 1, dr 360 ft.

KENT COUNTY—The Texas Co.'s Barron 1, dr 4275 ft.

KIMBLE COUNTY—Dixie Oil Co.'s Harrison 1, dr 200 ft.

LOVING COUNTY—Lockhart & Co.'s R. L. Allen 1, top salt 695 ft, dr up bailer 2330 ft.

LYNN COUNTY — Hart Oil Corp.'s Edwards 1, ur in red beds 1000 ft.

MENARD COUNTY—J. R. Lewis et al's White 1, spudding. Robinson-Dwyer & Cobb's Wilhelm 1, lcn.

MITCHELL COUNTY—Magnolia Pet. Co.'s Mary Foster 2, dr 500 ft; Foster 3, lcn; Foster 4, rig. Mid-Kansas O. & G. Ellwood 2, dr 810 ft Owen-Sloan Oil Co.'s C. P. Conway 1-A, dr 1850 ft. Teas-Stivers et al's Hardee 1, dr 490 ft. F. P. Zoch et al's Ford 1, dr 520 ft.

NOLAN COUNTY — Hucony Gas Co.'s Arthur Sears 1, dr 950 ft.

PECOS COUNTY — Dixie Oil Co.'s Mrs. Hersheusen 1, dr out cement plug 5240 ft. Benedum-Trees' J. C. Trees 1, rig. Buell-Hagan et al's W. W. Batchler 1, spd and sd. Transcontinental Oil Co.'s Perry 1, sd 3487 ft.

PRESIDIO COUNTY — Hadlock-Miller et al's Tootle 1, sd 2255 ft.

REAGAN COUNTY — H. D. Camp et al's University 1, sd hfw 2786 ft. C. M. Cope et al's L. H. White 1, lcn. Moody Oil Corp.'s Sawyer 1, dk. Texon & Marland Oil Co.'s Sawyer 1, dr by tools 2335 ft. Roxana Pet. Corp.'s Boyd 1, rig. Simon et al's R. A. Walters 1, co 2030 ft. Texon Oil & Land Co.'s University 5, Group 2, lcn.

REEVES COUNTY—Cromwell et al's TP Fee 1, sd 2405 ft. Grisham-Hunter Corp.'s State Fee 1, dr 835 ft. World Oil Co.'s Biggs 1, lcn.

RUNNELS COUNTY—Red Bank Oil Co.'s Fowler 1, rig. F. P. Zoch et al's Nichols 1, lcn.

SCHLEICHER COUNTY—Beavers-Leath et al's Whitten 1, spd and sd. Cope & Dalton's Sol Meyer 1, dr 950 ft. S. C. Magee et al's Robinson 1, materials.

SCURRY COUNTY—Northwest Co.'s H. P. Welborn 1-A, setting up core machine, td 3435 ft.

STERLING COUNTY — Co-Operative Dev. Co.'s E. W. Douthitt 1-A, dr 2985 ft. The Exploration Co.'s C. A. Broome 1, dr 2045 ft.

STONEWALL COUNTY — Arkansas Fuel Oil Co.'s Craft 1, dr with rotary hard lime 3983 ft.

TAYLOR COUNTY—City of Abilene's Fee 1, rig. Sanger O. & R. Co.'s R. H. Anderson 2, rig; J. F. Gillespie 1, rig.

TERRELL COUNTY—Sun Oil Co.'s N. M. Scott 1, dr 310 ft. E. T. Williams et al's Sowden 1, fsh cas 1825 ft.

UPTON COUNTY—Atlantic Oil Prod. Co. al's Baker 1, lcn. W. W. Donnelly & Gerke's Rankin 1, dr 3675 ft. Bill Dunning et al's Crier-McElroy 1, top salt 958 ft, dr 990 ft. Gulf Prod. Co.'s Baker 1-B, dr 360 ft; Shirk 1-D, top salt 545 ft, dr 1815 ft; Sanger Bros. 1, lowering cas to test show oil 3120-25 ft. Humble O. & R. Co.'s J. T. McElroy 1, top salt 1560 ft, dr 2010 ft. Johnson-McCamey et al's Shirk 1, dr 210 ft. Sartain Bros. & Davis' Mrs. Bull 1, dr 995 ft. Skelly Oil Co.'s O. P. Jones 1, dr 1470 ft. Texas Pacific Coal & Oil Co.'s Shirk 1, elevation 2634 ft, top salt 560 ft, swabbed 150 bbls oil 1st 12 hours 2163 ft; Shirk 2, elevation 2614 tf, top salt 535 ft, dr 1400 ft; Shirk 3, lcn. Texon Oil & Land Co. & Marland's Halff 1, dr 175 ft.

VAL VERDE COUNTY—A. Blume et al's Moore 1, sd 2410 ft. O. O. Owens et al's Mills 1, steel dk. Independent Operators' Whitehead 1, sd 3340 ft. Pleateau Oil Co.'s B. S. Harrison 1, sd 2450 ft.

WINKLER COUNTY — Brandon-McCamey et al's TP Fee 1, elevation 3367 ft, top salt 1660 ft, dr 2360 ft. McCullough Oil Co.'s Tobe Morton 1, lcn. Ed. S. Hill & Ladd-Simon's Ambrugey 1, fsh 535 ft. R. S. Matthews et al's Cowden 1, rig. Llano Oil Co.'s Scarborough 1, lcn. L. Taliaferro & Wentz Oil Corp.'s Sealy 1, dr 900 ft. R. A. Westbrook & Co.'s T. G. Hendricks 1, drilled out cement plug and bailed oil and some water, td 2529 ft. F. P. Zoch et al's John Sealy 1, rig.

Coastal Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Live Oak County—		
Mid-Kansas Oil Co.'s J. H. Drummond 1	*	2025

DRILLING REPORT

AUSTIN COUNTY — Valley Oil Co.'s Thompson 1, 30 mile N of Orchard, no report.

BRAZORIA COUNTY—Roxana Pet. Corp.'s Pabst A-1, lcn; Clemens 3, Clemens Dome, dr 1451 ft in gumbo and lime; Allen 3, Allen Dome, dr 802 ft in gumbo and shale; Allen Bernard River 1, lcn.

CHAMBERS COUNTY — Osage Oil Co.'s State 1, rigging up.

FORT BEND COUNTY—Gulf Prod. Co.'s Davis 15, Long Point, dr 2310 ft in gumbo and boulders; Davis 16, Long Point, dr 600 ft in cap rock; Davis 17, dr 708 ft in rock. The Texas Co.'s Farmer 1, Boling, dr 3645 ft in sandy shale; no show. Sun Co.'s Farmer 1, Boling, dr 1760 ft in gumbo and lime.

GOLIAD COUNTY — Houston Oil Co.'s Pettus 1, Goliad, moving in new dk, td 2524 ft.

HARRIS COUNTY—Kelley et al's Lipper 1, Aldine, dr 3070 ft in shale and lime. Gwyn et al's Cage 1, Huffman, sd 1308 ft in gumbo.

JEFFERSON COUNTY—Gulf Prod. Co.'s Bordages 2, Fannette, dr 4701 ft in shale. Port Arthur Development Co.'s West 4, Westbury, dr 415 tf in shale. Barbe et al's Garrick 1, Beaumont, sd 2435 ft in gumbo.

LIBERTY COUNTY—Humble Oil & Ref. Co.'s Welder 3, Liberty extension, dr 2335 ft in gumbo; Welder 4, Liberty extension, dr 1500 ft in gumbo. Gulf Production Co.'s Beckman 1, Liberty extension, dr 1650 ft in gumbo. George Leland's Grogan Lbr. Co. 2, 14 miles N of Dayton, sd 600 ft.

LIVE OAK COUNTY — Mid-Kansas Oil Co.'s J. H. Drummond 1, 8 miles N of Three Rivers, abn 2025 ft.

MATAGORDA COUNTY—Gulf Prod. Co.'s Parkinson 1, Hawkinsville, 3752 ft in sand and shale; Craig 6, Hawkinsville, dr 100 ft in red clay.

WHARTON COUNTY — The Texas Co.'s Felder 2, Boling, dr 3508 ft in gummy shale. Rich-Humphreys' Malone 1, 5 miles W of Wharton 1, sd 1625 ft in lime.

San Antonio Wildcats

CALDWELL COUNTY—Bristol Oil & Gas Co.'s No. 1 Denmon, dr. United North & South Oil Company's No. 1 Kelly, dr below 6300 ft. No. 1 Tiller, dr below 5900 ft.

DUVAL COUNTY — Associated Oil Co.'s No. 1 Sutherland, dr. Barkley-Meadows-Morgan No. 2 King Harper, dr. Graham et al's No. 1 Beall, no report. Humble Oil Co.'s No. 1 Dowdy, dr; No. 6 Walsh, no report; No. 7 Schallert, dr; No. 9 Singer, dr; No. 1 Beecher, dr. Killam, O. W. No. 4 Lopez, produced 40,000,000 cu. ft. of gas at 1745 ft. Magnolia Pet. Co.'s No. 1 Spear, dr. Maurer & Duggan No. 1 Hoffman, dr. O'Hern-Putman-Seacord No. 2, survey 174, lcn. Simms Oil Co.'s No. 2 Dinn, survey 666, casing set at 2603 ft, bottom of hole at 2633 ft; No. 1 Schallert, fsh at 3763 ft.

GUADALUPE COUNTY — Davis, J. M., Poole No. 1, reported abandoned. No. 1 Payne, Bond, Shaw, drilling. No. 1 Rosenbeck, bailing at 745 ft—good oil showing. Wildman & Blackwell's No. 1 Smith, dr.

ZAPATA COUNTY—Killam No. 1, survey 307, dr. Magnolia Pet. Co.'s No. Cuellar, dr at 2095 ft. Trees Oil Co.'s No. 1 Benavides, standing at 3003 ft. Texas Co.'s No. 3 Jennings, dr at 1756 ft.

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R. J. Miller Co., Houston, Texas

PERMITS GRANTED FOR NEW WELLS

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells during the past year in Kansas, Oklahoma, Arkansas, Louisiana, Texas and California:

	Feb. 1926	Mar. 1926	Apr. 1926	May 1926	June 1926	July 1926	Aug. 6	Aug. 13	Aug. 20	Aug. 27	Sept. 3
Arkansas	80	106	124	103	100	107	30	13	12	10	21
California	126	116	135	79	69	80	21	25	23	34	32
Louisiana	104	145	150	109	107	141	21	22	31	19	24
Kansas	144	160	170	156	161	143	37	24	30	93	32
Oklahoma	322	419	593	471	411	522	102	101	100	28	90
Texas	756	817	1070	941	1168	1468	315	221	264	273	250
Mountain States	...	...	...	113	124	108	47	23	16	20	16
Total	1532	1763	2242	1972	2149	2569	573	429	476	477	465

CALIFORNIA

Brea Olinda—Brea Canon Oil Co.'s No. 40, 1-3-10 .

Huntington Beach—Miley Oil Co.'s Pacific Electric 3, 10-6-11; Pacific Electric 4, 10-6-11. Petroleum Securities Co.'s Gross 1, 10-6-11; Gross 2, 10-6-11; Tubach 1, 10-6-11; Montgomery 1, 10-6-11. Standard Oil Co.'s Crawford 1, 10-6-11; Bolsa 26, 34-5-11; Huntington B 51, 3-6-11. Superior Oil Co.'s Chudnow 1, 10-6-11; Nixon 1, 10-6-11. The United Oil Co.'s Ward 1, 10-6-11.

Inglewood—Standard Oil Co.'s Stocker 7, 16-2-14.

Kern River—C. C. M. O. Co.'s No. 1, 23-28-27.

Long Beach—Acme Pet. Corp.'s Damron 5, 19-4-12. Rainbow Pet. Co.'s Savage 1, 28-4-12. A. J. Delaney's Delaney 35, 13-4-13. The United Oil Co.'s Denni 4-A, 29-4-12.

Los Angeles County—Dominguez Extension Oil Co.'s No. 1, 22-3-13.

Midway—Honolulu Cons. Oil Co.'s No. 85, 4-32-24. The United Oil Co.'s Calidon 8, 19-31-23. Honolulu Cons. Oil Co.'s No. 37, 8-32-24; No. 49, 8-32-24. Caribou Oil Mining Co.'s No. 13, 32-31-23. Standard Oil Co.'s 231, 7-32-24.

Montebello—Standard Oil Co.'s Baldwin 69, 6-2-11.

Newport—Jordan & Maney's Costa Mesa 1, 21-6-10. J. J. Rekar's No. 4, 21-6-10.

Richfield—General Pet. Corp.'s Thompson 9, 28-3-9.

Rosecrans—General Pet. Corp.'s Vaughn 4, 18-3-13.

Torrance—C. C. M. Oil Co.'s Del Amo 85, 8-4-13.

MOUNTAIN STATES

WYOMING

Midwest Refining Co.'s No. 1, 21-27-113.

COLORADO

Union Oil Co. of California's No. 1K, 19-8-63.

MONTANA

Rice Oil Co.'s No. 1, NE¼ 13-34-2; No. 2, SE¼ 13-34-2. California Co.'s No. 8, SW¼ 26-35-2. Thirty-One Oil Co.'s No. 2, SW¼ 31-35-1; No. 3, SW¼ 31-35-1. Carter Oil Co.'s No. 3, NW¼ 11-35-2. Securities Oil Co.'s No. 10. SW¼ 30-35-1; No. 11, SW¼ 30-35-1; No. 12, SW¼ 30-35-1. Ferdig Oil Co.'s No. 11, NW¼ 35-35-2; No. 8, NE¼ 1-34-2. Sunburst-Huston Oil Co.'s No. 1, NE¼ 36-33-2. Maharg Oil Co.'s No. 1, NW¼ 26-35-2. Fifty-Six Oil Co.'s No. 18, NE¼ 32-35-1.

OKLAHOMA

Beckham County—W. R. Duke No. 3 McGee, northeast of the southeast of the northeast of the southeast of 25-8n-22w; No. 1 Devers, northeast corner of the southeast of the northwest of 36-8n-22w. J. S. Nelson No. 1 Adams, southwest corner of the northeast of 35-9n-25w. Standard of Oklahoma No. 1 Vanner, southwest corner of the northwest of the southeast of 19-9n-23w.

Caddo County—W. H. Livermore et al No. 1 Alexander, northeast of the southwest of the northeast of 10-5n-9w.

Carter County—Wirt Franklin No. 7 Carpenter, southeast corner of the northwest of the southwest of 22-2s-3w.

Creek County—The Texas Company No. 3 Yarhola, southwest corner of 23-15-8; No. 5 Johnson, center of the east line of the northeast of the southwest of 26-14-8. Mid-West and Gulf No. 3 Murrell, center of the south line of the southwest of the northeast of 17-19-9. Bartlett Development Co. No. 1 Boyd, southeast corner of the southwest of 28-19-9. Smith & Mann No. 1 Derrisaw, southwest corner of the northeast of 34-19-9. Gypsy Oil Co. No. 14 Richards, southwest of the northeast of the northwest of 1-18-11. Gypsy No. 15 Richards, southwest of the northwest of the southeast of the northwest of 1-18-11. Riverland Oil Company No. 2-A Land, southeast corner of the northwest of the northwest of 1-18-11; Riverland No. 3 Land, twin, southeast of the northeast of the southwest of the northwest of 1-18-11. Sheridan Oil Co. No. 3 Sherrill, southeast corner of the northwest of the northwest of the northwest of 2-18-11. Holmes et al No. 1 Eufaula, northwest corner of 5-18-11. W. J. Cole No. 1 Unallotted, southwest corner of the northwest of the northeast of 11-18-11. W. J. Sherry et al No. 1 D. Kell, northeast corner of the southeast of the southeast of 11-18-12. Nowata and Independent No. 2 Pemberton, northeast corner of the northwest of 8-17-10. Pioneer Petroleum Co. No. 11 Bucktrot, northwest corner of the northeast of 24-17-10. Buckholt and Norman No. 1 Frank, northwest corner of the northeast of the southwest of 27-15-10. Mid-Continent Pet. Corp. No. 2 Harry, southwest corner of the southeast of 4-14-10.

Grady County—Magnolia Pet. Co. No. 3-A Rockhill, southeast corner of the northwest of 11-4n-8w. Carter Oil Co. No. 1 Sahm, southwest corner of the northwest of 35-3n-5w.

Hughes County—Independent Oil & Gas Co. No. 5 Davis, southeast corner of the southwest of the northeast of 26-9-9. Roxana Pet Corp. No. 1 T. E. Powell, northwest corner of the northeast of 35-9-9.

Jefferson County—Gypsy Oil Co. No. 32 Seay, southeast corner of the northwest of 3-6s-5w; No. 33 Seay, center of the south line of the southeast of the northwest of 33-6s-5w. Hivick et al No. 1 Agee, northwest corner of the northeast of the southeast of 13-7s-6w.

Kay County—Vernon Oil & Gas Co. No. 5 Brokhouser, northwest corner of the southwest of the southeast of 17-29-1e. Hope Oil Co. No. 1 Skelton, southwest corner of the northwest of 15-27-1w. Marland Oil Co. No. 2 McCullough, northeast corner of the southwest of 12-26-2w.

Lincoln County—J. A. Hull No. 1 Foster, northeast corner of 27-15-6. Magnolia Pet. Co. No. 1 Richie, northeast corner of 9-14-5.

Muskogee County—Culp et al, No. 5 I. Vanderslice, southeast corner of the northwest of the southeast of 30-15-15. Howard and Murphy No. 1 Smith, northwest corner of the southeast of the southeast of 18-13-19.

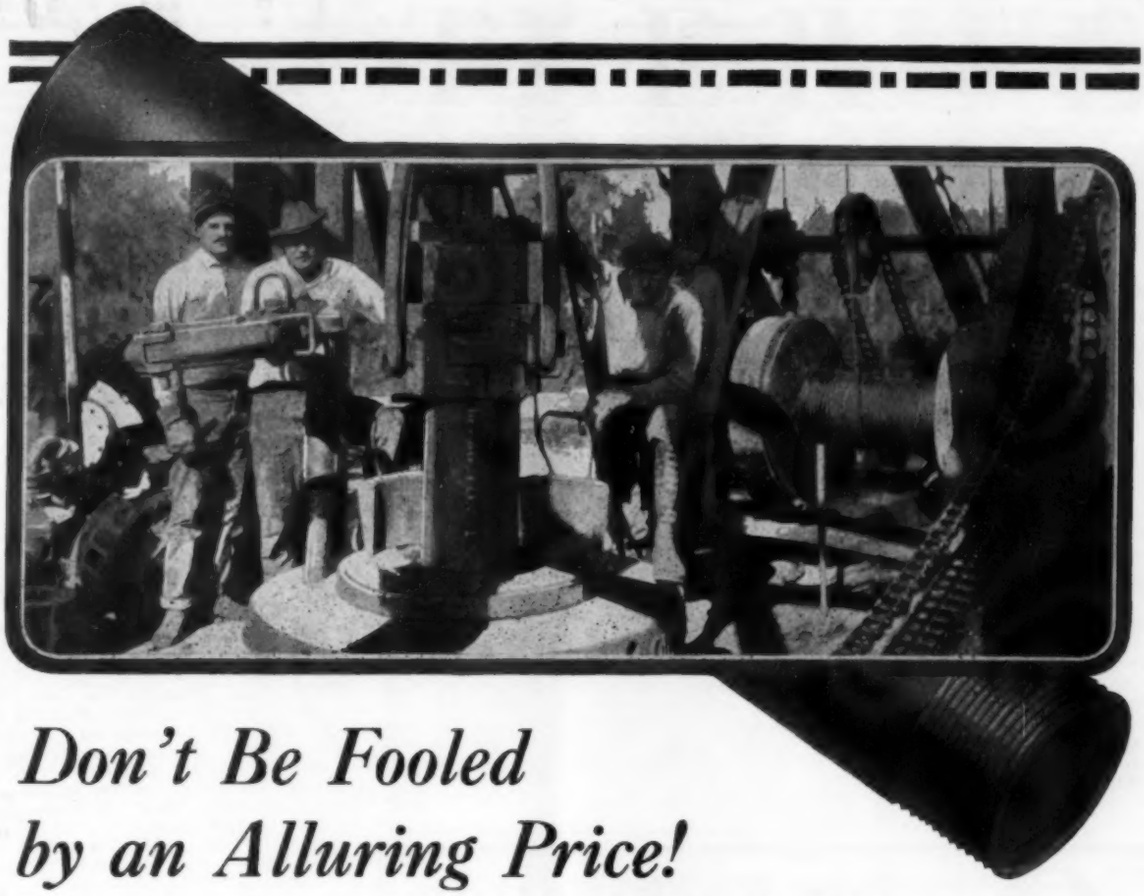
Noble County—Magnolia Pet. Co. No. 1 Nathan Sams, northwest corner of the southeast of 17-21-2w.

Okmulgee County—Clover et al No. 8 Fee, northeast corner of the northwest of the northwest of 3-15-11. D. D. Mickelson No. 2 Manuel, twin, northwest corner of 29-15-12. Abbott, Dillard and Empire Gas and Fuel Co. No. 1 L. Adams, northwest corner of the southeast of 8-14-12. E: L. Black No. 2 Thomas, old well deepened, southwest corner of the 32-12-12. Haley and Hollihan No. 1 Beidleman, southwest corner of the southeast of 10-13-13. Droppleman and Weir No. 4 Hawkins, northeast corner of the southwest of the northeast of 4-11-12. C. H. Miller No. 1 T. E. Roberts, southeast corner of the southwest of the northeast of 32-15-13. H. E. Clark et al No. 6 L. Scott, old well deepened, center of the south line of the southwest of the southwest of 14-15-14. Custer Oil Co. No. 8, S. Perryman, twin, northeast corner of the southeast of the southeast of 19-15-14. J. L. Powell No. 5 S. Sells, northwest corner of the southwest of the northwest of 9-14-15. Sheridan Oil Co. No. 1-A M. Bowman, northwest corner of the southeast of the northeast of 32-13-13.

Osage County—Jennings et al No. 3, center of the north line of the southwest of 31-29-12. Phillips Pet. Co. No. 12, southeast corner of the northeast of the southwest of 1-27-5. Kewanee Oil & Gas Co. No. 1, southeast corner of the northwest of 34-27-6. Kewanee No. 1, northeast corner of the southwest of 34-27-6; Kewanee No. 2, northwest corner of the southwest of the northeast of 34-27-6. C. O. Ross et al No. 3, southeast corner of the southwest of the southwest of 10-27-11. Jess Moore No. 1, northeast corner of the northwest of 6-26-5. Lewis Oil Co. No. 11, northwest of the southeast of the southeast of 21-26-6; Lewis No. 12, northeast of the southwest of the southeast of 21-26-6. The Texas Co. No. 2, northwest of the southwest of 29-25-8. Marland Oil Co. No. 1, southwest corner of the northeast of 15-24-6. Barnsdall Oil Corporation No. 1, center of the south line of the southeast of 11-24-8. Peters Pet. Co. No. 1, northwest corner of the southwest of 18-23-9. Tidal Osage Oil Co. No. 1, southeast corner of the southwest of 34-23-9; Tidal Osage No. 1, southwest corner of the southeast of 34-23-9. Oklahoma Natural Gas Co. No. 715, center of the east line of the northwest of 20-21-12. Continental Oil Co. No. 16, center of the south line of the north half of the northwest of 28-20-12.

Pawnee County—Watchorn Oil & Gas Co. No. 16 G. L. Miller, southwest corner of the northeast of the southwest of 33-23-3. Victor Oil Co. No. 1 Colbaugh, center of the west line of the northwest of the southeast of 22-22-7. Shelts et al No. 3 Martin, northwest of the southwest of the northeast of 7-20-8.

Seminole County—Searight et al No. 1 Guimby, southeast corner of the northeast of 33-10-6. Carter Oil Co. No. 2 F. Carter, northeast corner of the southeast of 23-9-6. Indian Territory Illuminating Oil Co. No. 1 Harjo, southeast corner of 23-9-6. Barnsdall Oil Corp. No. 6 Carter, northeast corner of the southwest of the northwest of 24-9-6. Tidal Oil Co. No. 3 Joe Carter, northwest corner of the southwest of 24-9-6. Magnolia Pet. Co. No. 1 Franks, NW corner of the SW of the SW of 25-9-6. Gypsy Oil Co. No. 4 Grisso, southwest corner of the northeast of the northeast of 26-9-6. Gypsy No. 5 Grisso, northeast corner of 26-9-6.



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Independent Oil & Gas Co. and Garland No. 5 Grisso, southwest corner of the southeast of the northeast of 26-9-6. Independent and Garland No. 6 Grisso, northwest corner of the southeast of the northeast of 26-9-6. Gypsy Oil Co. No. 1 Larney, southwest corner of the northwest of 2-9-7. Gypsy No. 1 Stephey, northwest corner of the southwest of 23-9-7. Magnolia Pet. Co. No. 1 Thomas, southwest corner of the northwest of 22-8-7; Independent Oil and Gas Co. and Atlantic Oil Prod. Co. No. 4 D. A. Long, northwest corner of the southwest of the northeast of 32-8-8.

Stephens County—Texhoma Oil and Ref. Co. No. 1 Church Lot, southeast corner of 26-2n-6w. Magnolia Pet. Co. No. 1 James Coza, southwest corner of the northeast of the northwest of 1-2n-5w. Walker Valley Oil Co. No. 4 Schick, southeast of the southwest of the southwest of the northeast of 27-1s-8w. Commanche Oil & Gas Co. No. 1 Wilson, northeast corner of the northwest of the northeast of 29-2s-7w. Magnolia No. 4 Brown, northwest corner of the northeast of 2-2s-5w, twin to dry hole.

Tulsa County—Cato Oil Co. No. 10 Cato, center of the southeast of the northeast of 29-19-11.

Wagoner County—B. B. Wheeler et al No. 2 S. Hawkins, northeast corner of the southeast of the northwest of the northeast of 9-18-16.

KANSAS

Butler County—Barnsdall Oil Corp. No. 1 Hearman, northeast corner of the northwest of the southwest of 20-26-3e. Davidson et al No. 1 Denchfiled, northeast corner of the southeast of 13-27-8.

Cowley County—Roxana Pet. Corp. et al No. 1 Sloan, northwest corner of 28-30-3. Trees Oil Co. No. 4 Lewis, northwest corner of the northeast of the northeast of 28-31-4. Independent Oil & Gas Co. et al No. 1 Swanson, northwest corner of the southwest of the southwest of the southeast of 15-32-4.

Greenwood County— Manhattan Oil Corp. et al No. 2 Sheppard, northeast corner of the southwest of the southeast of 2-22-10. Syndicate Oil Co. No. 3 Bradfield, southwest corner of the southeast of the southeast of 2-22-10. Sinclair Oil & Gas Co. No. 48 Browning, center of the northeast of the southwest of 20-22-10. White Eagle Oil & Ref. Co. No. Yearout, southeast corner of the northeast of 10-22-11. Empire Gas & Fuel Co. No. 13 Fromme, southeast corner of the northwest of 14-22-11. Empire No. 8 Fankhauser, southeast corner of 4-22-12. Simmons et al No. 4 "B" Fankhauser, southeast corner of the southwest of the northeast of 4-22-12. Callahan et al No. 1 Fankhauser, northeast corner of the northwest of 23-22-12. Snyder et al No. 1 Farr, northwest corner of the northeast of the southeast of 31-22-12. Enterprise Dev. Co. No. 1 Todd, northwest corner of the southwest of the northwest of 9-22-13, corrected. Marland Oil Co. No. 1 Edward, southeast corner of the northwest of 7-23-11. Darby et al No. 1 McGilbrey, southwest corner of the northeast of the northeast of 17-23-11. Lamar and Hayne No. 1 O'Neil, southeast corner of the northeast of the northwest of 20-23-11. Wilson et al No. 1 Wengler, northeast corner of the southwest of 12-23-12. Polhamus et al No. 2 Halverson, northeast corner of the northwest of the northeast of 26-24-9. Crawford and McKenna No. 1 "A" Freeman, southwest corner of the northeast of 6-24-11. Polhamus and Smith No. 1 Smith, southwest corner of 8-24-11. Manhattan Oil Corp. No. 1 Jacob, northwest corner of 17-24-11. Manhattan Oil Corp. No. 1 Gaffney, northeast corner of 18-24-11. Basom et al No. 1 McCarthy, southwest corner of the northwest of 27-25-10. Connell et al No. 1 Green, southwest corner of the northwest of the northeast of 17-25-12. Smith et al No. 1 Lowery, southeast corner of 21-26-9. Mountain Oil Corp. No. 1 O'Byrne, northeast corner of the southwest of 12-27-9.

Lyon County—Super Six Oil Co. No. 3 Rossillion, southwest corner of the southeast of 24-21-10.

Sumner County—Roxana Pet. Corp. No. 2 Churchill, southeast corner of the northeast of the southwest of 25-31-2e. Roxana No. 3 Churchill, northeast corner of the southeast of the southwest of 25-31-2. Roxana No. 2 Van Sickle, center of the west line of the southwest of the northeast of the southeast of 25-31-2e.

ARKANSAS

Columbia County — Gordon-Folwell-Dickson Synd.'s Jones 8, 1-16-20.

Grant County—Jones & Watkins's Meek 1, 5-4-11, NEc SE¼ SW¼.

Ouachita County—Gulf Ref. Co.'s Umstead A-22, 33-15-15, 1600 ft N and 725 ft W of SEc of section. Roxana Pet. Corp.'s Berg 7, 28-15-15, SWc E½ NW¼ SE¼. Standard Oil Co.'s Umstead B-7, 32-15-15, NWc SE¼ NW¼. Van Diver et al's Yarbrough 1, 22-14-17, 150 ft N and E of SWc NW¼ SE¼.

Union County—Atlantic Oil Prod. Co.'s Ford 4, 3-17-16, NWc of section. Bailey & Trimble's LeCroy 2, 17-16-15, SEc NE¼ NE¼. Grimes & Jones' Van Hook 8, 8-18-14, SWc SW¼ NW¼. Humble O. & R. Co.'s Goodwin 2, 20-17-16, SEc NE¼ SE¼. Imperial O. & G. Co.'s Parker 1, 21-17-16, NWc NE¼ NW¼; Primm 4, 21-17-16, SWc NE¼ SW¼. Lion O. & R. Co.'s Mitchell A-13, 17-17-16, NEc SW¼ SE¼; Mitchell A-17, 17-17-16, center NE¼ NE¼. Magnolia Pet. Co.'s Hulsey 4, 20-17-16, NEc NW¼ NE¼; Hulsey 5, 20-17-16, SEc NW¼ SE¼; Slaughter 2, 17-17-16, SEc NW¼ SE¼. Natural Gas & Fuel Corp.'s Cordell 1, 9-18-13, NEc SW¼ NW¼ SE¼. Roxana Pet. Corp.'s Willett 3, 3-17-16, center west line SW¼ NW¼. Southern Crude Oil Purch. Co.'s Wells A-5, 15-16-15, center south line NE¼ NW¼. The Texas Co.'s Calloway 8, 4-16-15, center south line NE¼ SE¼.

LOUISIANA

Caddo Parish—C. H. Murphy, El Dorado, Ark., Youree 1, 13120n-15w, 200 ft N and 200 ft W of SE cor of NE¼ of NW¼.

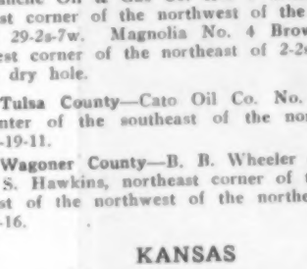
Calcasieu Parish—F. F. Hintze, Majestic Hotel, Lake Charles, La., Benckenstein 1, 31-10s-10w, 1520 ft E and 200 ft N of SW cor of section.

DeSoto Parish—F. A. Craise et al, P. O. Box 680, Shreveport, La., J. H. Riggs 1, 27-14n-13w, 200 ft S and 200 ft W of NE cor of NW¼.

Grant Parish—H. L. Hunt, Inc., El Dorado, Ark., Matheson Est. 1, 15-9n-1e, 200 ft S and 200 ft E of NW cor of section.

La Salle Parish—Chal Daniels, Tullos, La., Urania 1, 2-9n-1e, 150 ft N and 150 ft E of SW cor of NW¼ of SE¼. H. L. Hunt, Inc., El Dorado, Ark., Griswold 4, 2-9n-1e, 200 ft S and 200 ft W of NE cor of NW¼ of SW¼. Lousiana Oil Ref. Corp., Shreveport, La., Tremont Lbr. Co. C-7, 2-9n-1e, 200 ft N and 200 ft E of SW cor of SE¼ of NW¼. Natural Gas & Fuel Corp., El Dorado, Ark., Russell A-5, 26-10n-1e, 200 ft N and 200 ft E of SW cor of SE¼ of SE¼; Russell A-6, 26-10n-1e, 440 ft S and 560 ft W of NE cor of SE¼ of SE¼; F. Tullos 4, 26-10n-1e, 230 ft N and 216 ft E of SW cor of NE¼ of SE¼; Urania M-5, 20-10n-2e, 300 ft N and 300 ft W of SE cor of NW¼ of SW¼; Urania M-6, 20-10n-2e, 300 ft S and 300 ft E of NW cor of NW¼ of SW¼. Tunica Pet. Co., 901 Commercial Bank Bldg., Shreveport, La., L. & A. Oil Co. 12, 17-7n-3e, 300 ft N and 300 ft E of center of section. Geo. W. Wetherbee, P. O. Box 512, Shreveport, La., Urania Lbr. Co. A-5, 2-9n-1e, 180 ft S and 175 ft W of NE cor of SW¼ of SW¼; Urania Lbr. Co. B-1, 3-9n-1e, 153 ft N and 152 ft W of SE cor of SE¼ of SE¼.

Natchitoches Parish—Arnold & Self, Robe-



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line, La., Fisher 1, 18-8n-9w, 480 ft W and 110 ft N of SE cor of SE¼ of NE¼. Henry J. Brothers, City Bank Bldg., Shreveport, La., Cockfield Est. 1, 78-7n-5w, 3529 ft E and 190 ft S of NW cor of section. R. E. Davidson et al, 913 Giddens-Lane Bldg., Shreveport, La., La. Long Leaf Lbr. Co. 1, 21-7n-9w, 660 ft N and 660 ft W of center of section.

Ouachita Parish—Gulf Ref. Co. of La., Shreveport, La., West Virginia Timber Co. 1, (second hole), 17-17n-5e, 300 ft N and 300 ft W of SE cor of NE¼.

Richland Parish—Gulf Ref. Co. of La., Shreveport, La., England Pltg. Co. et al 1, 32-17n-6e, 2940 ft N and 250 ft W of SE cor of section. Louisiana Pet. Corp. & W. E. Hicks, 208 Ricou-Brewster Bldg., Shreveport, La., Binion & Sartor 1, 22-17n-6e, center of SW¼ of NE¼. Roxana Pet. Corp., Dallas, Texas, Tensas Delta 1, 3-14n-5e, 225 ft N and 225 ft W of SE cor of section.

St. Martin Parish—Sabine Oil Co., Breaux Bridge, Louisiana, Hebert Hrs. 1, 58-9s-5e, 6000 ft from the NW cor Irreg. section 58.

Union Parish—Gulf Ref. Co. of La., Shreveport, La., Lizzie Wilson 1, 5-19n-1e, 1055 ft S and 300 ft E of NW cor of section.

TEXAS

Archer County—Shaw & Rathke, Wichita Falls, M. E. Rogers A-4, 1596 TE&L sur, 300 ft E of No. 2. Schermerhorn Oil Co., Cosden Bldg., Tulsa, Okla., R. H. Miller 2, A. Rohus sur, 155 ft to N and 185 ft to E line; H. O. Prideaux 1, J. Dorsey sur, 750 ft to N and 150 ft to E line; H. O. Prideaux 1, J. Dorsey sur, 925 ft to E and 155 ft to S line. Gates, Bacon & Lea, City Nat. Bank Bldg., Wichita Falls, W. H. Thomas 8, B 6, N. Thomas sur, 300 ft SW of No. 4; 9, same sur, 399 ft W of No. 7; 10, same sur, 300 ft SW of No. 2. Atlantic Oil Prod. Co., Magnolia Bldg., Dallas, S. E. Oldham 6, E. Hubble sur, 300 ft N of No. 4. Mid-Kansas Oil & Gas Co., Tulsa, Okla., W. L. Andrews 4, S 137, R. Carson sur, 1320 ft to N and 990 ft to E line. Pandem Oil Co., Wichita Falls, W. H. Thomas 7, B 5, N. Thomas sur, 300 ft S of No. 6. American Ref. Co., Inc., Wichita Falls, J. H. Turbeville 3, B 150, R. Carson sur, 437 ft S of No. 2. Whittekin & Atlantic Oil Prod. Co., Dallas, W. J. Logan 1, J. Taylor sur, 150 ft to S and W lines. L. T. Burns, Wichita Falls, J. W. Reese 1, J. W. Harris sur, 150 ft to N and E lines. Plains Production Co., Staley Bldg., Wichita Falls, R. O. Prideaux 4, J. Dorsey sur, 150 ft to S and E lines; R. N. Graham 1, J. W. Snell sur, 150 ft to N and W lines. Texas Co., Wichita Falls, J. H. Tubeville 5, B 172, R. Carson sur, 1125 ft to E and 160 ft to S line. Magnolia Pet. Co., Dallas, M. Rutty B-7, J. C. Reilly sur, 150 ft to N and E lines.

Atascosa County—Frontier Oil Co., San Antonio, G. W. Foster 4, No. 519 J. P. McKinney sur, east central.

Anderson County—Navarro Oil Co., Humble Bldg., Houston, Greenwood, Barrett & Greenwood 1, R. R. Powers sur, 2700 ft to W and 1250 ft to S line.

Brown County—Wayne H. Hammon, Wichita Falls, T. B. Strelsky 13, S 7-8, ETRy sur, 350 ft S of No. 10; 14, 300 ft N of No. 11; B. S. Boysen 4, S 7-8, ET Ry 300 ft S No. 3; 5, 150 ft to S and E lines. Harris-Hayes Oil Co., Okmulgee, Okla., Boysen 4, S 7, ET Ry sur, 230 ft to E line. Prairie Oil & Gas Co., Ranger, J. F. Pickett 2, S 158, ET Ry sur, 300 ft W of No. 1. J. E. McKanna, Box 789, Wichita Falls, J. I. Foster 16, S 783, T. Benson sur, 330 ft E of No. 14; 13, 660 ft N of No. 4. Texas Co., Cisco, A. Williams 6, J. Beck sur, 200 ft to N and 150 ft to W line. Hoffer Oil Corp., Fort Worth Club Bldg., Ft. Worth, L. H. Runge 1, S 29, HT&B sur, 660 ft to N and E lines. W. V. Lester, 4308 Hall St., Dallas, M. E. Fry 5, 621 J. Chandoin sur, 150 ft to N and E lines; 4, 750 ft to N and 160 ft to W line; 1-A, 621 J. Chandoin sur, 160 ft to N and 150 ft to E line. J. E. McKanna, Box 789, Cisco, Foster 15, S 783, T. Benson sur, 300 ft W of No. 5. States Oil Corp., Eastland, D. C. Wooldridge 7, S 157, ET Ry sur, 150 ft to S and E lines. Magnolia Pet. Co., Dallas, M. C. Fry 3, J. Chandoin sur, 300 ft S of No. 2; 4, 300 ft W of No. 1.

Brazoria County—Roxana Pet. Corp., Houston, Clemens 3, J. McNeel sur, 3301 ft to N and 1250 ft to E line; R. C. Allen 3, S. Mc-

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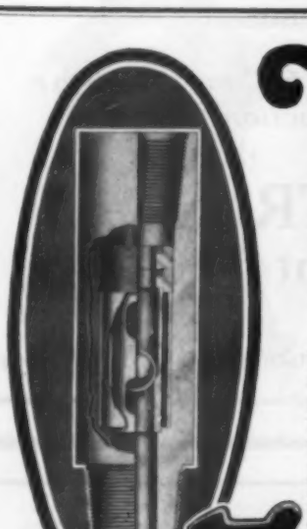

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Neel sur, 1200 ft to W and 26 ft to S line. San Bernard River Dunn lease 1, J. G. McNeel sur, center of river; F. C. Pabst 1, J. McNeel sur, 341 ft to N and 350 ft to W line. Texas Co., Houston, Hogg 82, C. Tennille sur, 400 ft W of No. 27; W. H. Abrams 12, G. Tennille sur, 400 ft W of No. 6.

Callahan County—Prairie Oil & Gas Co., Ranger, H. C. Brown 2, CCSL sur, 150 ft to S and W lines. H. V. House, Moran, F. A. Hern 1, No. 129 BBB&C sur, 150 ft to S and E lines. Duffy & Goodloe, Abilene, J. N. Jackson 1, S 118, BBB&C sur, 1284 ft to E and 150 ft to S line. Cranfill & Reynolds, Box 607, Cisco, E. E. Henderson 6, B 73, CCSL sur, 300 ft W of No. 3. Tidal Oil Co., W. T. Waggoner Bldg., Ft. Worth, Wm. Neal 1, S 33, CCSL sur, 150 ft to S and W lines. J. F. Hughes, Roaring Springs, Z. E. Marvin 1, B 70, Bayland Asy sur, 450 ft to S and E lines. W. R. Andrews et al, Putnam, R. D. Williams 64, 2973 TE&L sur, 825 ft to E and 840 ft to S line. Prairie Oil & Gas Co., Ranger, R. Cunningham 6, S 73, CCSL sur, 450 ft to W and 150 ft to N line. Moutray Oil Co., Cisco, A. Hickman 3, S 149, BBB&C sur, 220 ft to N and 150 ft to W lines.

Coleman County—J. K. Hughes Dev. Co., Mexia, O. M. Fayre 1, Bonds & Sanders sur, 450 ft to N and 150 ft to W line. Burke-Greis Oil Co., Box 262, Tulsa , Okla., J. C. Dibrell 5, J. W. Hicks No. 265 sur, 779 ft to E and 200 ft to S line. Harris Haye Oil Co., Commercial Bank Bldg., Okmulgee, Okla., Pfluger 1, B 34, W. Skirlock sur, cen of blk 34. Amerada Pet. Corp., Cisco, J. W. Harris 68, B 7, J. Saunders No. 162 sur, 922 ft N of No. 65; 69, 400 ft E of No. 68; 71, 550 ft NE of No. 8; 72, 440 ft W of No. 58; 70, 530 ft NE of No. 1. N. S. Charnock, Cisco, Wm. Roberts 4, S 163, Wm. Mason sur, 450 ft to N and 1650 ft to E line.

Crane County—Marland Oil Co., Ft. Worth, Gibbs 1, S 93, F. Rooney sur, 330 ft to NW and 330 ft to SW line; S. Hughes C-2, S 86, B X CCSD&RGNG sur, 330 ft to NW and 330 ft to SW line; C-2, 330 ft to NW and 330 ft to NE lines.

Chambers County—Mills Bennett Production So., & Humphreys Corp., Houston, Kirby Pet. Co. 91, B 2, H. Griffith sur, 390 ft SE of No. 1-B; A. E. Barber 4, H. Griffith sur, 675 ft to W and 75 ft to N line.

Clay County—Wester Oil Corp., Brown Bldg., Wichita Falls, Magnolia 4, B 25, PCSL sur, south central.

Caldwell County—Alexander & Lyles Inc., American Exchange Nat. Bank Bldg., Dallas, B. Kelly 1, J. A. Neill sur, 150 ft to S and W lines.

Cooke County—Jno. W. Hooser, Thomas Bldg., Dallas, J. A. Dennis 3, T. J. Moss sur, 305 ft W No. 2.

Duval County—Goodman, Maddox & Michel, Sames-Moore Bldg., Laredo, R. Carlisle 1, B 18, Copita Farms, NW cor lot No. 10.

Eastland County—G. R. McManis, Box 444, Breckenridge, J. C. Dyer 1-A, 2988 TE&L sur, 150 ft to S and E lines. Sinclair Oil & Gas Co., Tulsa, J. H. Nail 1, S 152, ET Ry sur, center. Mid-Kansas Oil & Gas Co., Tulsa, C. W. Hardy 1, W. DeMoss sur, 779 ft to N and 1900 ft to E line. States Oil Corp., Eastland, J. Harrell 4, S 6, B 4, H&TC sur.

Gray County—Texas Co., Wichita Falls, A. Holmes 3, S 87, B 3, I&GN sur, 330 ft to E and 1322 ft to S line; 4, 330 ft to N and 990 ft to W line; 2, 330 ft to S and E lines. Phillips Pet. Co., Bartlesville, Okla., J. H. Merten 1, S 87, B 3, I&GN sur, 330 ft to N and W lines.

Gonzales County—G. D. Scott, Smiley, A. S. Billings 1, Geo. Guinn sur, 600 ft to W and 2300 ft to S line.

Guadalupe County—Cottle Oil Co., Inc., San Antonio, B. A. Harris 4, 300 ft E No. 3.

Hutchinson County—Empire Gas & Fuel Co., Staley Bldg., Wichita Falls, Johnson 2, S 21, B Y, A&B sur, 330 ft to N and E lines. Dixon Creek Oil Co., Amarillo, H. E. Smith 17-A, S 14, B Y, M&C sur, 50 ft N of No. 17; H. E. Smith 35, S 5, B Y, M&C sur, 330 ft to N and W lines. Shamrock Pet. Corp., Wichita Falls, J. A. Whittenburg 3, B 27, M. Whitley sur, 330 ft to N and E lines; 4, B26, 330 ft to N and E lines. Amerada Pet. Corp., Cisco, G. A. Whittenburg 3, S 20, B Z, GC&SF sur, 1150 ft to N and 519 ft to W line. W. R. Kistler, Box 388, Whittenburg, H. E. Smith 7, S 14, B

Y, H&TC sur, 660 ft W of No. 8; 8, 330 ft to S and E lines. J. K. Hughes Dev. Co., Mexia, W. L. Kingsland 8, D&SE sur, 660 ft S of No. 1; 7-B, 660 ft N of No. 6; W. L. Kingsland 1, S 8, B 21, TC Ry sur, 1388 ft to W and 330 ft to S line. Gulf Production Co., Ft. Worth, J. A. Whittenburg 7, M. Whitley sur, 494 ft S of No. 4; 8, 495 ft E of No. 3; 9, 495 ft E of No. 1. Skelly Oil Co., Tulsa, E. B. Johnson 8, S 20, B Y, 531 ft W of No. 5; 9, 646 ft N of No. 6; 10, 330 ft to S and W lines. Phillips Pet. Co., Bartlesville, Okla., J. Whittenburg 1, S 65, B 46, H&TC sur, 330 ft to W and 220 ft to S line. Rock Island Oil Co., Box 1263, Amarillo, W. A. Starnes 1, S 22, B M23, 330 ft to S and E lines.

Hardin County — Humphreys Corp., Mason Bldg., Houston, Bashara 1, P. S. Griffith sur, NE cor of blk 50. Gulf Production Co., Houston, C. L. Jackson 2, Jackson sur, 98 ft to W and 50 ft to N line; 3, 177 ft to W and 51 ft to N line. Lake View Oil Co., Sour Lake, Hardin County Oil Co. 50, S. Jackson sur, 125 ft SE of No. 49.

Harris County— Navarro Oil Co., Humble Bldg., Houston, Humble 1, BBB&C No. 1028 sur, 51 ft E of center of W line.

Hartley County —Kork Oil Co., Amarillo Hotel, Amarillo, J. S. Skelton 1, S 1, B B8, 330 ft to S and E lines.

Harrison County—A. A. Eason, El Dorado, Ark., J. M. Bryson 1, E. M. Jenkins sur.

Jefferson County — Atlantic Oil Prod. Co., Dallas, M. McLean 6, P. Humphreys sur, SW of No. 7; 7, NW of No. 8; 8, SW corner. Gulf Production Co., Houston, Jack & Duff 4, P. Humphreys sur, 125 ft E of No. 3; Oakwood Realty Co. 5, J. Douthitt sur, 125 ft NE of No. 3; 6, 45 ft E of No. 2; D. Roach 5, J. A. Veatch sur; J. F. Weed 7, D. Douthitt sur, 100 ft to S and 75 ft to E line. Sun Oil Co., Beaumont, M. McLean 7, P. Humphreys sur, 30 ft to N and E lines; J. B. Price 1, P. Humphreys sur, 50 ft to N and 75 ft to NE line. Yount-Lee Oil Co., Beaumont, Gladys 10, B 12, J. A. Veatch sur, 415 ft to W and 594 ft to S line. McFaddin, Weiss & Kyle Land Co., 12, P. Humphreys sur, 500 ft to N and 1375 ft to E line; 11, 55 ft to N and 1126 ft to E line; Fee 9, J. Douthitt sur, 58 ft to S and 217 ft to W line; 8, 294 ft to S and 256 ft to W line.

Jones County—Gillett & Hickey, Cisco, M. E. Young 61, No. 190 B. Trevino sur, 150 ft to N and 1320 ft to E lines.

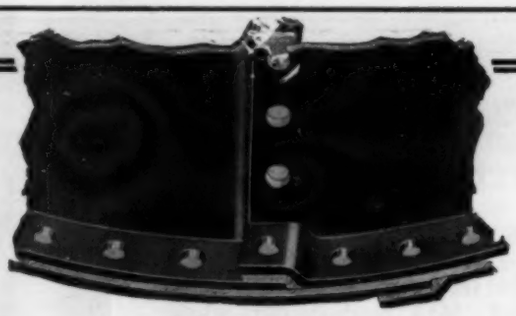
Jim Hogg County—E. L. Smith Oil Co. and Maddox, Mexia, C. Palacios 10, No. 291 S. C. Hendrix sur, 150 ft to S and E lines. J. L. Collins & Co., Box 314, Corsicana, C. Palacios 8, S 291, B 21, 600 ft S of No. 4. Grayburg Oil Co., San Antonio, Weil 7, S 81, B 15, 550 ft to S and 150 ft to E line. Magnolia Pet. Co., Dallas, Merchants Bank 8, No. 415 F. M. Brister sur, NW corner.

Liberty County — Houston Production Co., Scanlan Bldg., Houston, H. Taylor 10, J. Devore sur, 155 ft to E and 150 ft to S line. Gulf Production Co., Houston, Phoenix 73, J. Devore sur, 135 ft N and 200 ft E of No. 70; 74, 250 ft N of No. 50.

Limestone County—Oxford Oil Co., Keystone Bldg., Houston, A. Medlock 1, P. Varela sur, 75 ft to E and 50 ft to S line. Godley Oil & Gas Co., and Cranfill & Reynolds, Cisco, A. E. Rosson 2, P. Varela sur; 3, same sur; 4, same sur. C. W. Green, Harvey-Snider Bldg., Wichita Falls, Bass & Sweatt 1, P. Varela sur, 719 ft to W and 558 ft to N line. Penn & Navarro Oil Co., Amer. Exchange Nat. Bank Bldg., Dallas, J. Peeples 1, W. A. Price sur, 195 ft to N and 150 ft to E line. Transcontinental Oil Co., Tulsa, Okla., T. D. Ross 2, P. Varela sur, 150 ft to N and W lines; A. E. Rosson 13, 375 ft S of No. 1; A. Medlock 3, 330 ft W of No. 1; D. Cogdell 6, 300 ft W of No. 2; 7, 300 ft W of No. 6; W. B. Cochrum 2, 300 ft S of No. 1; 3, 300 ft E of No. 1. Humble Oil & Refining Co., Houston, W. W. Gunter 1, H&TC No. 1 sur, 150 ft to S and W lines.

Milam County—Chicago Oil & Land Co., Inc., Rockdale, E. T. White 1, T. S. Arnett sur, 150 ft to S and E lines. Messer & Kolster, Bartlett, A. B. Berry 1, M. Dovilla sur, 500 ft E of center of W line. Clear Lake Oil Co., Rockdale, H. T. Coulter 15, T. S. Arnett sur, 150 ft S of center of N line. Strelsky & Gamble, Minerva, J. Strelsky 2, T. J. Chambers sur, 150 ft to S and W lines.

Montague County—Allday Oil Corp., Wichita



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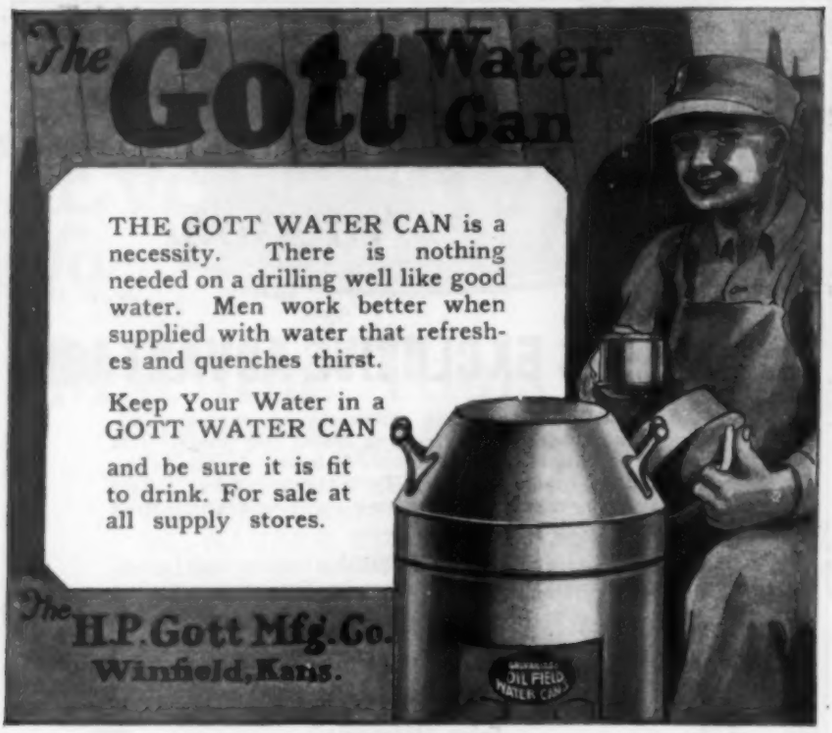
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One complete string Standard Drilling Tools.
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Falls, J. G. Howard 1, B 100, KCSL sur, 150 ft to S and E lines. Texas Co., Wichita Falls, F. Riddle 1, E. Votaw sur, 150 ft to W and 87 ft to S line; J. E. Oldham 23, J. Chambliss sur, 50 ft W of No. 4; I. A. Gist 21, W. Donoho sur, 450 ft W of No. 17; 22, 2900 ft to N and 250 ft to W line. Frank M. Greene, Box 595, Ft. Worth, T. Wilson 1, J. J. Morton sur, 1800 ft to E and 150 ft to S line. Pure Oil Co., Mexia, J. W. Maddox 3, O. W. Thompson sur, 338 ft N of No. 2.

Mitchell County—California Co., Colorado, C. M. Adams 4, S 11, B 28, T&P sur, 660 ft S of No. 3.

Medina County—Western Gas & Fuel Co., City Nat. Bank Bldg., San Antonio, M. Adams 1, E. C. Durst sur, 150 ft to W and 175 ft to N line. United North & South Dev. Co., Luling, R. Taylor 2, No. 136 sur, 600 ft W of No. 1.

Matagorda County—Gulf Production Co., Houston, W. A. Sanborn 2, T. Williams sur, 650 ft SW of No. 1; A. L. Craig 6, T. Williams sur, 500 ft SE of No. 5.

Moore County—Morton & Co., Massie Bldg., Amarillo, H. W. Reeder 1, S 191, B 3T, T&NO sur, 33 ft to S and W lines.

McCulloch County—Van Bebber & Lehman, Lohn, F. Smith 1, No. 1162 sur, 480 ft to E and 680 ft to S line.

Navarro County—Treadwell & Fountain, Box 212, Corsicana, S. J. Fife 2, W. Powell sur, 500 ft to W and 150 ft to N line. Reiter-Foster Oil Corp., Cisco, G. W. Ross 1, J. McGee sur, 150 ft to SW and 750 ft to SE line.

Potter County—Relief Oil Co., Amarillo, H. E. Smith 4, S 11, B Y, 330 ft to S and E lines.

Palo Pinto County—H. C. Heath, Ranger, A. P. Wilbar B1, J. Latham sur, 200 ft to E and 160 ft to S line.

Reagan County—Moody Corp., W. T. Waggoner Bldg., Ft. Worth, Sawyer Cattle Co. 1, S 150, B 1, T&P sur, center.

Runnels County—Red Bank Oil Co., Castle Bldg., Tulsa, Okla., W. W .Fowler 1, B 514, J. H. Willis sur, 150 ft to W and 1320 ft to S line.

Shackelford County—Hope Oil & Gas Co., Tulsa, Okla., W. D. Reynolds 8, S 24, B 11, T&P sur, 150 ft to S and W lines; 9, 450 ft to N and E lines; 10, 300 ft N of No. 8; 11, 300 ft N of No. 10; Davis 2, D 13, B 12, T&P sur, 300 ft N of No. 1; 3, 300 ft N of No. 2. Snyder & Moutray & Son, Abilene, C. B. Snyder 1, S 39, LAL sur, NW corner. Texas Co., Cisco, W. H. Osborne 7, S 30 Univ. Lands sur, 660 ft to N and E lines; S. S. Diller 38, S 48, LAL sur, 263 ft to N and 1018 ft to W line. L. B. Tannehill, Albany, R. J. Moberly 20, S 11, B 11, T&P sur, 450 ft SE of No. 19. C. D. Hagerty, Albany, Black Bros. 3, S 391, TE&L sur, 750 ft to N and E lines. Moutray & Reiter-Foster Oil Corp., Cisco, T. L. Terry 3, S 47, LAL sur, 1170 ft to S and 150 ft to W line. Gibson & Johnson, Alexander Bldg., Abilene, J. F. Dyer 3, S 85, B 12, T&P sur, 660 ft. to W and 1980 ft to S line. E. B. Cochran, Wichita Falls, S. S. Diller 1, S 42, LAL sur, 810 ft to N and 245 ft to W line. W. V. Lester, 4308 Hall St., Dallas, Goodwin-Walker 1, S 62, B 13, T&P sur, 750 ft to E and 600 ft to S line. Roesser & Pendleton, Ft. Worth Club Bldg., Ft. Worth, W. I. Cook 3-B, S 61, ET Ry sur, 150 ft to S and 365 ft to W line; 6-B, S 60, 150 ft to N and 365 ft to W line. W. L. Mallory, Moran, R. B. Pool 1, S 71, LAL sur, 150 ft to E and 450 ft to S line. W. B. Keene, Cotton Exchange Bldg., Ft. Worth, W. L. English 6, S 18, Univ. Lands sur, 300 ft N of No. 1. Milham Corp. of Texas, Travis Bldg., San Antonio, L. Claussell 1, 582 TE&L sur, 150 ft to SW and 450 ft to SE line. Dr. C. W. Wallace, Wichita Falls, G. E. Waters 34, B 61, Univ. Lands sur, 500 ft to W and 1125 ft to S line. Texhoma Oil & Ref. Co., Wichita Falls, W. J. Jones 19, S 72, LAL sur, 300 ft E of No. 18. Texas Co., Cisco, S. S. Diller 37, S 42, LAL sur, 179 ft to E and 2225 ft to S line. Delaney & Carter, Box 925 Breckenridge, J. M. Schrader 1, J. M. Schrader sur, 549 ft to N and 1905 ft to W line. W. R. Loggie, Albany, Blach 9, 396 TE&L sur, 450 ft to NE and 150 ft to SE lines. A. C. Trumbo, 1014 Washington Ave., Ft. Worth, I. Sayre 1, S 177, 660 ft to N and E lines.

Stephens County—Moody-Texas Oil Co., First Nat. Bank Bldg., Ft. Worth, 1, S 51, B 6, T&P sur, 197 ft to N & E 450 ft to

BAROID Safeguards Drilling

YOU are careful to protect your rigs and machinery against wind and rain—the dangers overhead. But what precaution do you take against gases—the enemy UNDERGROUND?

BAROID conquers subterranean gases BEFORE they inflict damage. When properly used, it prevents a well from "blowing wild." Because of Baroid, drilling is now less of a risk—more of a steady, orderly procedure.

BAROID is a form of barytes that stays in suspension. It completely seals off the gas-bearing strata. And it builds a firm arch —one that effectively resists erosion.

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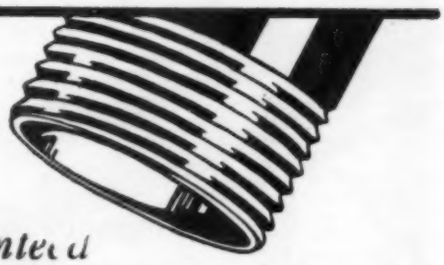
September 30, 1926 By U. S. Government

September 30, 1926, at Pawhuska, Oklahoma, about 35,580 acres will be offered for oil leases in quarter section tracts. Bids will be for bonus in addition to royalties, 25% payable on day of sale, balance in three annual instalments, with acceptable security. Within advertised area there are about 9,615 oil wells producing from one barrel to 1000 barrels each, the total daily production for June, 1926, being about 70,000 barrels; also, there are about 135 wells drilling. All lands are now leased separately for gas. Blue print maps of area advertised, showing tracts producing oil or gas, can be had for fifty cents each, also logs of producing oil or gas wells for twenty-five cents each well. Write U. S. Superintendent, Osage Agency, Pawhuska, Oklahoma, for maps, logs or other information.



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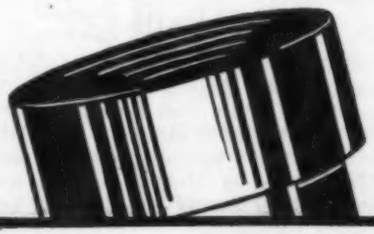

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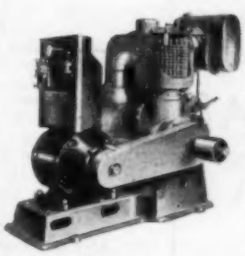
SUPER POWERED by the 8 H.P. "New-Way" AIR-COOLED ENGINE



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2. It has light weight with rugged strength.
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4. Silent Chain Drive (enclosed) runs in oil.
5. Marco Units furnished with or without batteries.

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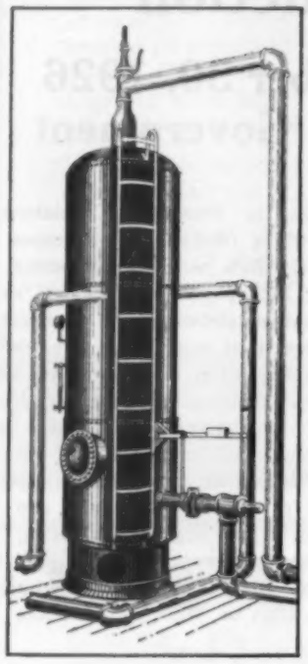
LANSING, MICHIGAN, U. S. A.

E line; Riddle Hrs. 1, S 46, B 6, T&P sur, 300 ft to N and W lines. Mid-Kansas Oil & Gas Co., Tulsa, Okla., S. H. Hill 11, 1122 TE&L sur, 600 ft to E and 550 ft to S line.

The TRUMBLE



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221-23 E. Archer TULSA, OKLA.

M. K. Lyman, Box 859, Breckenridge, J. E. Langston 1, S 18, B 6, T&P sur, 800 ft to N and 300 ft to W line.

Throckmorton County—Gulf Production Co., Ft. Worth, J. H. Lee 1, 2202 TE&L sur, 330 ft to S and W lines. Humble Oil & Ref. Co., Wichita Falls, A. J. Ellis 1, 987 TE&L sur, 466 ft to W and 250 ft to S line. Reiter-Foster Oil Corp., Atlas Life Bldg., Tulsa, Okla., Stubblefield 1, 991 Premium sur, 330 ft to N and W lines; 2-A, 330 ft to N and 400 ft to E line. Cranfill & Reynolds, Cisco, R. P. Lee 1, S 221, BBB&C sur, 660 ft to S and W lines. Harry Hines, Wichita Falls, J. T. Davis 1, B 10, Haygood & Farmer sur, 150 ft to S and E lines. Humble Oil & Ref. Co., Wichita Falls, J. L. Stubblefield 3, 991 TE&L sur, 660 ft S and 660 ft E of No. 1.

Upton County—Marland Oil Co., W. T. Waggoner Bldg., Ft. Worth, A. S. Burleson 26, S 100, T. C. Jones sur, 650 ft W of No. 27; 27, 660 ft N of No. 8; 28, 330 ft to N and 3166 ft to E line; 23, 1330 ft to S and 2937 ft to E line; 24, 660 ft W of No. 8; 25, 1638 ft to E and 1530 ft to S line; Sanger 14, S 1, B R, J. H. King sur, 661 ft SE No. 8; 15, 330 ft SE of No. 12; A. S. Burleson 29, S 100, T. C. Jones sur, 514 ft W of No. 28. Texas Co., Wichita Falls, R. King 8, S 11, B 3½, CCSD& RGNG sur, 330 ft to S and W lines.

Val Verde County—E. T. Williams et al, Del Rio, Holman 1, B N, GH&SA sur, 560 ft to W and 150 ft to N line.

Wichita County—A. D. Robinson, Kirby Bldg., Dallas, J. E. Roller 31, W. A. Grady sur, 150 ft to W and 450 ft to N line; 32, west central part of lease. Rubsam & Hunter, Wichita Falls, W. D. McClure 2, B 5, GC&SF sur, 306 ft to N and 70 ft to E line. A. I. Ramsdell, Ward Bldg., Wichita Falls, W. B. Honaker 1, B 2, R. Meade sur, center of lot No. 19. Dale Oil Corp., Wichita Falls, S. B. Burnett 14, J. F. Torrey No. 2 sur, 750 ft to N and 450 ft to W line. G. R. Ridgeway, Perkins-Snider Bldg., Wichita Falls, Foster & Allen 1, SA&MG sur, 150 ft to N and 450 ft to W line. Texas Co., Wichita Falls, W. T. Waggoner 312, No. 19 GC&SF sur, NW corner. W. A. Patterson, F. & M. Bank Bldg., Fort Worth, L. P. Douglas 2, SA&MG Ry No. 2 sur, 300 ft W of No. 1. J. A. Fisher, City Nat. Bank Bldg., Wichita Falls, Fee 7, S 24, B 5, L. M. Collins sur, 150 ft to N and 459 ft to W line. R. Lambert, 1701 Beverly Drive, Dallas, W. R. Brown 1, BBB&C sur, 150 ft to N and W lines. Texhoma Oil & Ref. Co., Wichita Falls, S. B. Burnett 1, S 2, T&NO sur, 212 ft to S and W lines. Cook & Reeder, Harvey-Snider Bldg., Wichita Falls, W. W. Overby 1, J. M. Sharp sur, 150 ft to S and W lines. Flint-Texas Oil Co., Genesee Bank Bldg., Flint, Mich., T. P. Warren 8, J. Hensley sur, 450 ft to N and 150 ft to E line. Wayne H. Hammon, Wichita Falls, J. & J. Waggoner 9, S 11, B 1, BS&F sur, 150 ft to W and 450 ft to S line. Magnolia Pet. Co., Dallas, S. S. Fassett 2, Day Land & Cattle sur, 150 ft to N and E lines. Gulf Production Co., Fort Worth, S. B. Burnett 39, S 4, HT&B sur, 2640 ft to N and 1329 ft to E line. Ryan Consolidated Pet. Corp., Bartlesville, Okla., G. Nance 81, S. O. Fowler sur, 335 ft W of No. 80; 82, 200 ft S of No. 58. British American Oil Prod. Co., Wichita Falls, Parker 4, B 3, McCool sur, 300 ft W of No. 2. Bonchil Co., Staley Bldg., Wichita Falls, H. Beach 36, CT Ry sur, No. 4, 100 ft E of No. 35. Geo. L. Pace, Staley Bldg., Wichita Falls, A. B. Edgerly 6, S 1, B 43, SA&MG sur, 300 ft to N and E lines; W. E. Timblin et al, Perkins-Snider Bldg., Wichita Falls, H. Willis 7, BBB&C sur, 34 ft S of No. 6.

Waller County—Rem Oil Co., Hempstead, W. F. Maxwell 2, J. Clary sur, NE corner

Wilbarger County—Phillips Pet. Co., Bartlesville, Okla., W. T. Waggoner 4, S 42, B 4, H&TC sur, 220 ft to N and W lines; 8, S 44, 150 ft to S and W lines; 5, S 42, 375 ft E of No. 1; 11, 348 ft E of No. 4. Milham Corp., Travis Bldg., San Antonio, W. T. Waggoner 16-L, S 42, B 4, H&TC sur, 50 ft N of No. 9.

Williamson County—J. V. Edwards, Round Rock, W. J. Fouse 2, W. Donaho sur, 100 ft SE of No. 1.

Wise County—Consolidated Oil Co., Wichita Falls, G. W. Mansfield 1, R. B. White sur, 406 ft to W and 870 ft to S line.

Webb County—Associated Oil Co., Houston, A. M. Bruni 2, B 44, Arriba sur, 600 ft W of No. 1. Alonzo Jr. Oil Prod. Co., 807 Grant St., Laredo, Garcia 7, No. 605 sur, 150 ft to S and W lines.

Young County—J. W. Collier, Markley, Fee 3, S 21, YCSL sur, 150 ft to W and 870 ft to S line; 4, 600 ft to W and 170 ft to S line. Bridwell & Mayfield, Wichita Falls, A. Williams 2, S 26, YCSL sur, 535 ft to S and 1575 ft to E line. Robert Oil Corp. & Carter & Ruff, Breckenridge, G. P. Stewart 4, D. Dawson sur, 300 ft N of No. 1.

Marland Employes Buy Royalty

Amarillo, Texas.—The Marland Employes Royalty Company has purchased one-half of the royalty covering approximately 6000 acres of the E. Cockrell ranch, located on the east side of the Hutchinson County oil and gas field for a cash consideration of $200,000. That portion of the Cockrell ranch lying within the M. & C. survey, block "Y," was not included. The Marland Employes Royalty Company is under the management of the officials of the Marland Oil Company, and the stock is held exclusively by officials and employes of the Marland companies.

Magnolia Buys Lease

San Angelo, Texas.—Magnolia Petroleum Company has purchased the Owen-Sloan Oil Company's discovery lease on the Otis Chalk ranch in southeastern Howard County for a consideration of $275,000, of which $100,000 was paid in cash and the balance payable in oil. This property consists of two wells in the 1600-foot sand pay with a combined production of 75 barrels daily, and about 1030 acres of leases. The Owen-Sloan Oil Company was organized early this year with a capital stock of $100,000, and is practically controlled by S. A. Sloan and S. S. Owens, who pioneered the development of the Westbrook field in Mitchell County.

Well Falls Off

San Angelo, Texas.—Dixie Oil Company's E. S. Hughes 4, which came in August 23 with a flush production of 390 barrels per hour at 2180 feet, flowed 4360 barrels of fluid Saturday, and dropped to 2070 barrels on Monday of this week. About 50 per cent is cut oil, but is being treated successfully.

Jones Sucker Rods have pleased for Thirty Years.
S·M·Jones Company,
TOLEDO·OHIO
Tulsa Office: 602 Wright Building

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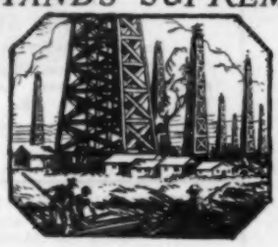
STANDS SUPREME



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District Office, 502 Cosden Bldg., Tulsa, Okla.

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for bad water conditions—

Lapweld Steel
for good water conditions—

For long tube life.

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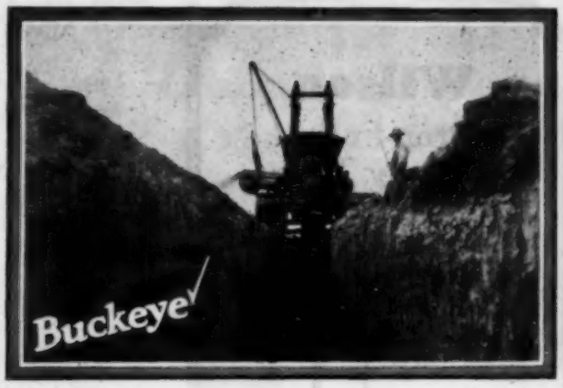

"Does Good Work *and* stands up under heavy loads."

The Janes Contracting Company, Dallas, Texas, specialize in pipe line, sewer and water works construction.

Five years ago they needed a trench excavator. A No. 4-A Buckeye was chosen because they decided it would best meet their needs.

Five years' profitable service has prompted them to tell us that their Buckeye "does good work and stands up under heavy loads. Repairs easily made and good service on parts."

Illustration shows the machine making a double cut. The side shield supports the digging wheel on the second cut.

On a sewer job at Wichita Falls, Texas, this Buckeye averaged 720 feet per day, digging 6 feet deep.

Cutting 18-in. by 22-in. pipe line trench it averaged 1960 FEET PER DAY ON A TWO MONTHS' JOB. It can dig much faster—for our friends tell us that it made over 6000 feet in one day of 10 hours during June 1926, on pipe line ditch.

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Manufacturers of Trench Excavators (both Wheel and Chain and Bucket Types), Pipe-Line Trench Excavators, Tile and Open Ditchers, Back-Fillers, Pipe Screwing Machines, Curb Diggers and Clay Diggers.

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TEXAS OIL MAPS
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Wichita Falls, Texas

List of Tracts Offered in Next Osage Sale

Tulsa, Oklahoma.—The next sale of Osage leases has been announced for September 30 at Pawhuska. The Osage Indian Agency has listed the following tracts for the bidding:

Description of land to be offered east of range 7.

T.	N.	Des.	Acr'ge	T.	N.	Des.	Acr'ge
1	SE	18-20-12	160	66	NW	23-22-9	160
2	SE	28-22-12	160	67	SE	26-22-9	160
3	SW	28-22-12	160	68	SE	27-22-9	160
4	NE	32-22-12	160	69	NW	34-23-9	160
5	NW	3-23-12	160	70	NW	35-23-9	160
6	NE	4-23-12	160	71	SW	17-25-9	160
7	NW	31-25-12	160	72	NE	19-25-9	160
8	SE	12-20-11	160	73	NW	20-25-9	160
9	SW	12-20-11	160	74	SE	27-25-9	160
10	NW	13-20-11	160	75	NE	30-25-9	160
11	NW	27-20-11	160	76	NW	33-25-9	160
12	SW	28-20-11	160	77	NE	34-25-9	160
13	NE	9-21-11	160	78	NE	7-27-9	160
14	NW	10-21-11	160	79	NW	8-27-9	160
15	NE	23-12-11	160	80	SW	8-27-9	160
16	NW	23-21-11	160	81	NW	15-27-9	160
17	SE	17-22-11	160	82	NE	16-27-9	160
18	SE	23-22-11	160	83	NE	23-27-9	160
19	NE	25-22-11	160	84	NW	23-27-9	160
20	SE	25-22-11	160	85	NW	35-27-9	160
21	NE	32-22-11	160	86	NW	12-28-9	160
22	NW	32-22-11	160	87	NE	21-28-9	160
23	NE	32-26-11	160	88	SE	30-28-9	160
24	SE	10-27-11	160	89	NE	31-28-9	160
25	SW	14-27-11	160	90	NE	35-28-9	160
26	SW	26-27-11	160	91	SW	36-28-9	160
27	NE	18-28-11	160	92	SE	14-21-8	160
28	NW	22-28-11	160	93	SW	14-21-8	160
29	SE	22-28-11	160	94	NE	15-21-8	160
30	NW	26-28-11	160	95	SE	3-24-8	160
31	SW	13-20-10	160	96	SW	3-24-8	160
32	SE	14-20-10	160	97	NW	11-24-8	160
33	SW	14-20-10	160	98	NW	13-24-8	160
34	NW	23-20-10	160	99	NE	18-24-8	160
35	SW	23-20-10	160	100	NW	18-24-8	160
36	NE	26-20-10	160	101	SW	20-24-8	160
37	NW	26-20-10	160	102	NE	5-25-8	160
38	NE	32-20-10	160	103	NW	5-25-8	160
39	NW	33-20-10	160	104	NW	9-25-8	160
40	NE	12-21-10	160	105	NW	12-25-8	160
41	SE	12-21-10	160	106	NW	26-25-8	160
42	NE	27-21-10	160	107	NE	27-25-8	160
43	NE	33-21-10	160	108	SE	32-25-8	160
44	SE	36-21-10	160	109	SW	33-25-8	160
45	SW	36-21-10	160	110	NE	9-26-8	160
46	NW	7-22-10	160	111	NW	9-26-8	160
47	NE	7-23-10	160	112	SE	15-26-8	160
48	SE	7-23-10	160	113	SW	15-26-8	160
49	NE	11-23-10	160	114	SE	25-26-8	160
50	SW	13-23-10	160	115	NE	27-26-8	160
51	SE	31-23-10	160	116	NW	27-26-8	160
52	NE	33-23-10	160	117	NW	36-26-8	160
53	SE	33-23-10	160	118	NE	2-27-8	160
54	SE	31-24-10	160	119	SE	2-27-8	160
55	SW	32-24-10	160	120	NE	15-27-8	160
56	NE	11-25-10	160	121	NW	15-27-8	160
57	NW	12-25-10	160	122	SE	23-27-8	160
58	NE	20-27-10	160	123	SE	25-27-8	160
59	SW	20-27-10	160	124	SE	32-27-8	160
60	SW	2-20- 9	160	125	SW	32-27-8	160
61	NE	16-21- 0	160	126	NE	30-28-8	160
62	SE	28-21- 9	160	127	SE	30-28-8	160
63	SE	10-22- 9	160				
64	SW	10-22- 9	160				
65	NE	12-22- 9	160			Total	20,320

To Be Offered West of Range 8.

T.	N.	Des.	Acr'ge	T.	N.	Des.	Acr'ge
128	Fr.	N½ 33-22-7	113.80	176	NW	20-26-6	160
				177	SW	20-26-6	160
129	SE	33-22-7	160	178	SW	22-26-6	160
130	Fr.	SW 33-22-7	106.9?	179	NE	28-26-6	160
				180	NW	28-26-6	160
131	NE	24-23-7	160	181	NE	29-26-6	160
132	SE	24-23-7	160	182	NE	7-27-6	160
133	NE	22-25-7	160	183	NW	7-27-6	160
134	NW	22-25-7	160	184	NW	13-27-6	160
135	SE	22-25-7	160	185	SE	13-27-6	160
136	SW	22-25-7	160	186	SE	4-28-6	160
137	NE	35-25-7	160	187	SW	4-28-6	160
138	NW	35-25-7	160	188	NE	9-28-6	160
139	SE	35-25-7	160	189	NW	9-28-6	160
140	SW	35-25-7	160	190	NE	5-25-5	160
141	NE	24-26-7	160	191	NW	5-25-5	160
142	NW	24-26-7	160	192	SE	5-25-5	160
143	SE	24-26-7	160	193	SW	5-25-5	160
144	SW	24-26-7	160	194	NW	1-27-5	160
145	NW	29-26-7	160	195	SE	1-27-5	160
146	NE	30-26-7	160	196	NE	13-28-5	160
147	SE	30-26-7	160	197	NW	13-28-5	160
148	SE	22-27-7	160	198	SE	13-28-5	160
149	SW	22-27-7	160	199	SW	13-28-5	160
150	NE	27-27-7	160	200	NE	9-23-4	160

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Save Tubing
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Try a String at Our Risk

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Mexia, Texas

Over 88,000 sold in 1925

Jack Dodson, Sales Agt., Long Beach, California, Gen. Del.

151	NW	27-27-7	160	201	NW	9-23-4	160
152	SE	15-28-7	160	202	SE	9-23-4	160
153	SW	15-28-7	160	203	SW	9-23-4	160
154	NE	22-28-7	160	204	NE	1-24-4	160
155	NW	22-28-7	160	205	NW	1-24-4	160
156	NE	13-23-6	160	206	SE	1-24-4	160
157	NW	13-23-6	160	207	SW	1-24-4	160
158	SE	13-23-6	160	208	NE	23-25-4	160
159	SW	13-23-6	160	209	NW	23-25-4	160
160	NE	21-23-6	160	210	SE	23-25-4	160
161	NW	21-23-6	160	211	SW	23-25-4	160
162	SE	21-23-6	160	212	NE	32-25-4	160
163	SW	21-23-6	160	213	NW	32-25-4	160
164	NE	4-24-6	160	214	SE	32-25-4	160
165	NW	4-24-6	160	215	SW	32-25-4	160
166	SE	4-24-6	160	216	NE	26-26-4	160
167	SW	4-24-6	160	217	NW	26-26-4	160
168	NE	19-25-6	160	218	SE	26-26-4	160
169	NW	19-25-6	160	219	SW	26-26-4	160
170	SE	19-25-6	160	220	NE	31-26-4	160
171	SW	19-25-6	160	221	NW	31-26-4	160
172	NE	21-25-6	160	222	SE	31-26-4	160
173	NW	23-25-6	160	223	SW	31-26-4	160
174	SW	22-25-6	160				
175	NW	27-25-6	160	Total			15,260.72

Create Public Relations Department

Tulsa, Oklahoma, August 28.—The Skelly Oil Company has created a department of public relations and named Glenn Condon as director of the work.

While all functions of the department have not been outlined, one of these will be the publication of a house organ. This will be a publication, devoted to all phases of the company's activities. The first number will appear in October. No name has been selected.

Condon is a former newspaper man of Oklahoma, who has more recently spent some time in New York, where he published a paper in the theatrical field. He was a member of the Oklahoma legislature from Tulsa County, resigning in 1917 to enlist in the Marines. Since the war he has been active in affairs of the American Legion.

Illinois Bulletin

Press Bulletin Series No. 4, "Illinois Petroleum," has just been issued from the press by the State Geological Survey at Urbana, Illinois.

Illinois Petroleum No. 4 presents discussions on the possibility of further oil production in two areas from which oil is now being extracted. The first article suggests areas near the Martinsville pool, Clark County, which are worthy of test drilling. The second article is a preliminary report on oil investigations in the Centralia area. The papers are accompanied by structure maps of the areas under consideration.

As long as copies are available they may be secured for 10 cents by addressing the Chief State Geological Survey, Urbana, Illinois.

Prairie Shipments Lower

Independence, Kansas.—Shipments of the Prairie Pipe Line Company for August were 4,005,484 barrels, the lowest total for the year. This total brought the daily average down to 129,114 barrels, the first time it has been below the 130,000 barrel mark in 1926. March has been the high month for Prairie shipments for this year when the total was 4,588,038 barrels, a daily average of 148,001 barrels.

The Leonard Combination Casing and Tubing Spear

use as a

TRIP OR BULLDOG

SLIPS are tapered so that they cannot split as do old-style spears.

TRIP is so made as to permit spear to be driven down several times before it finally trips. Can be set just as the operator likes.

SPEAR now being made for use in 2, 2½, 3-inch tubing.

LARGER sizes now being made and will be ready for the market shortly.

COLLAR on the LEONARD COMBINATION SPEAR is threaded for a guide and bowl to guide the tubing into the spear.

Fully Patented

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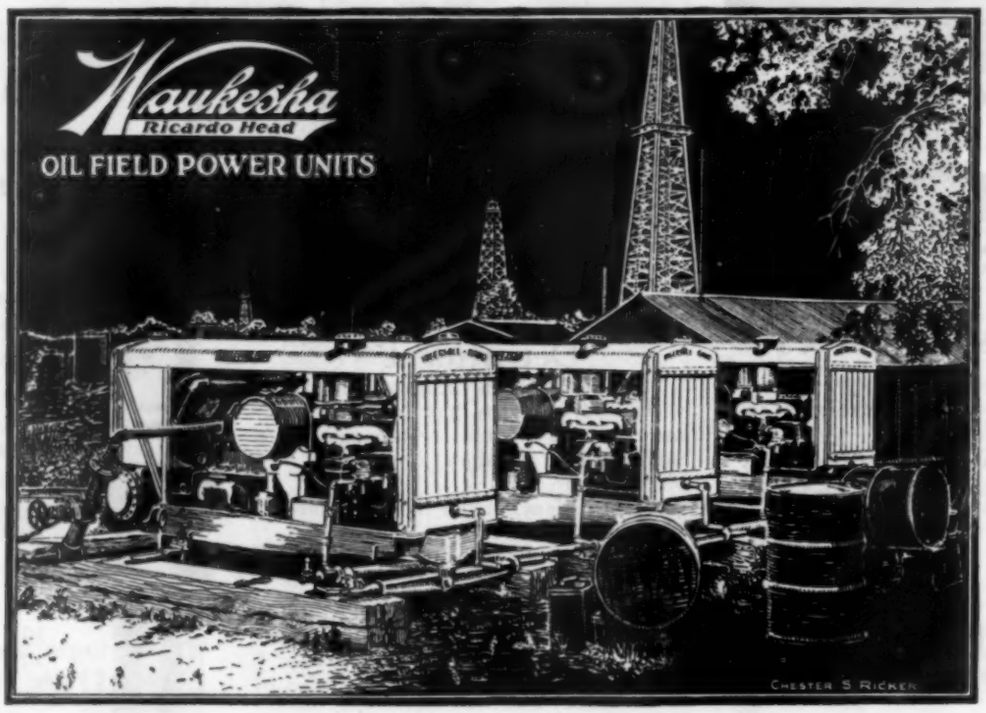

Reviving Dry Holes

Charley Gladden, Supt., in the Wewoka District for the Magnolia Petroleum Co., reports that these Waukesha - Ingersoll Rand units of his have not only increased the flow from producing wells but have revived wells which have ceased to flow. Although designed for 400 pounds discharge pressure they have been run continuously at 640 pounds, for sixty days at a time—thus demonstrating the reserve power of the Waukesha "Ricardo Head" Engines and their unfailing reliability.

Waukesha "Ricardo Head" Engines are not only used as standard equipment by Ingersoll Rand and Portable Rotary Rig Co., in the Oil Fields, but are available in Oil Field Power Units varying in size from 40 to 120 H. P. and can be obtained from and serviced by men who are familiar with the requirements of the Oil Industry. Write for "Oil Field Bulletin".

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Waukesha Wisconsin

New York	Kansas City	Denver	Tulsa	Houston	San Francisco
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Exclusive Builders of Heavy Duty Gasoline Engines for Over Twenty Years

NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS

Blanton Sand Trap Kills Agitation of Fluid

After more than two years of experimenting with the Blanton Sand Trap, this product has now been put on the market and is being widely used in the Mid-Continent.

Arrangement of the trap is such that the oil cannot be pumped lower than the top holes, thereby making a position and tubing, holding the gas and floating sand on the outside of the tubing. It also prevents a vacuum from affecting the ball in standing and traveling valves, since the gas is held on the outside of the tubing.

It is claimed that the trap eliminates all agitative oil seal in perforation of the fluid, allowing the sand to settle to the bottom of the anchor.

Further information may be had from the Blanton Sand Trap Company, Wichita Falls, Texas, and the trap may be obtained through supply dealers.

Hill Clutch Catalog Gives Valuable Information

A new catalog of power transmission and engineering information has just been issued by The Hill Clutch Machine & Foundry Company of Cleveland, Ohio. This catalog, No. 26, is printed in three sections, A, B and C.

Section 26-A illustrates and describes a new flexible coupling, flanged and compression couplings, shafting and bearings. Another item in this section is an improved type of clamp for securing bearings to structural steel without the necessity of drilling holes.

Section 26-B covers the application of the patented "Smith Type" Hill clutch pulleys and cut-off couplings including quill drives. A complete horsepower table is presented from which friction clutch or plain pulleys may be chosen to meet any requirements. Full data and dimension tables enable the designer to incorporate any of the standard forms of "Smith-Type" Hill clutches in power transmission layouts. Following pages take up transmission of power by belting, giving formulas and tables covering the horse-power of leather belting. Application of belt tighteners to secure maximum horsepower transmitted is discussed in detail.

Section 26-C illustrates and describes both American and English systems of rope drives; agitator designs, parts and gearing; "forged-cast" iron cast tooth, and cut spur bevel gears; "industrial type" speed transformers; and much pertinent engineering data such as bolt strengths and dimensions, pipe dimensions, threads and tap drills, sheet and wire gauges, fusion temperatures, tables of allowable loads on structural shapes, concrete data, trigonometric functions, areas and circumferences of circles, etc.

Copies of the catalog and hand-book will be mailed upon request to the company.

Special Core Barrel for Cable Tool Outfits

A core barrel especially adapted to cable tool drilling has been put on the market of the Baker Casing Shoe Company, Huntington Park, California. This device is said to be the first one to enable cable tool operators to take adequate cores.

Baker Core Barrel

In construction, the Baker Standard core barrel consists of a hollow drill barrel within which a hollow core tube is reciprocally mounted so that a vertical reciprocation of the drill barrel will drive the core tube over the core of the formations penetrated.

The drill barrel is composed of three essential sections— a head, main body, and core shoe. The drill barrel is fitted with a pin to screw into the box of the drill stem, and is threaded at its lower end, into the top of the main drill barrel. Circulation holes are provided which lead inwardly into a chamber, closed at the bottom, by a spring pressed back - pressure valve opening downwardly.

The core tube head is connected to the top of the core tube body and is larger in diameter than this body thereby forming a shoulder. Vertical grooves or splines formed in the surface of this head serve as water courses. A ball check valve allows the discharge of the drilling water trapped in the core tube as it fills with the core, passageways being provided from the valve chamber to the outside of the head.

The drilling shoe is made with a clearance at the cutting edge to allow the barrel to drop freely in the hole. The cutting teeth are spaced irregularly to prevent key seating and are tipped with a special alloy metal. It is connected to the lower end of the barrel with a special tool joint thread, and being smaller than the inside of the barrel, a shoulder is formed which prevents the removal of the inner core tube which has a shoulder at its upper end as mentioned.

The inner surface of the drilling shoe has water course grooves to allow free passage of liquid from within the barrel. The core tube shoe connects with the lower end of the core tube body and is made with a sharp bevel edge, also tipped with special metal alloy. A loose, split retaining ring is mounted on the inside near the cutting edge to pinch off the core and hold it in place.

Throughout the West, and through the Rocky Mountain section, the barrel has been used with gratifying success.

More thorough information can be had about the device from its manufacturers, the Baker Casing Shoe Company, Huntington Park, California.

"Braymer" Ripper Rips Either Up or Down

The "Braymer" pattern casing ripper, manufactured by The Beard Foundry and Machine Company, Arkansas City, Kansas, is recommended as a good tool for ripping casing either up or down. It is also made as a combination tool so it can be used either up or down.

Additional information will be supplied by the company on request.

Visitor From Holland

Ponca City, Okla.—Dr. W. C. Klein of The Hague, Holland, has been here several days in the interest of the Royal Dutch Shell Company of which he is a director. While here he looked over holdings of the Roxana Petroleum Company and the Comar Oil Company, owned jointly by Roxana and by the Marland Oil Company. From here he went to California and will sail for the Dutch East Indies.

LETTERS OF Paul Peebles P.S.G.

Hon. mr. calvin coolidge, pres.

dear cal:

cal I hav saw in the pappers recent that yu r takin a vakashun & goin fishin but I gess yu will be gittin back 2 werk now pretty soon so I want 2 hassen 2 tell yu rite off that yu r about 2 hav sumthin put over on yu bi a buntch of fellers whitch yu hav hired 2 find out sumthin for yu about oil.

I will say this thow cal that it was pretty slick on yore part to put this hear conversashun job off on Mr. sec. work & the rest of the birds whitch he sumtimes lets there names git in the report along with hisn whenever he givs ennything out 2 the newspapers. otherwise cal yu wood hav 2 reed what hennery I dorety says about it & I am shure that yu wood not want 2 do that, first because yore time is 2 vallerble & on the other hand it wood be disastryus 2 yore faithe in humanity 2 reed what he says about judge hughes who is a man whitch I am pretty shure yu hav sum regard for on account of he bats pretty high in yore leeg.

I aint saw the full text yet of the report whitch yore commity will hav on yore dest when yu git back 2 the white house, on account of for 1 thing I do not think it is perlite 2 reed a fellers male before he has saw it hisownself, but what I can understand about it from the talk goin round they is tryin 2 stuff yu up that it aint but six yeres of oil left in site.

If that is so cal I gess that sum fellers wood no it better than the bord can find out & wood be sellin there standard stock & not puttin no munny in pipe lines & refineries. on account of the things whitch has happen since the bord sent out them ?aires I wood ast for a recount if I was yu before I done ennything rash like dorety wants that yu shood do.

but sinct I am givin yu sum good advist along this line I wonder if yu cood not anser me a ? whitch has bin botherin me for a long time, whitch is aint it a fack, cal, that dorety kinder put yu up 2 this hole mess in the first plase? if it is so I think we ort 2 hav sum kind of a law whitch will make yu reed yoreownself everything whitch he has ritten about it, whitch wood be yore just deserts.

I wood also like 2 no if yu agree with henryl about the war whitch we are goin 2 hav rite away?

but I seam 2 be kinder wanderin off from the subject whitch yu will excuse me for doin on account of I hav just bin reedin doretys latest letter 2 the oil bord, whitch is enuff 2 make enny 1 kinder wander in his talk.

noin that yu r a bussy man & also that yu need to no what he says mabe, I want 2 point out 2 yu that henry is kinder shapin things his way.

in the first plase yu remember he cum 2 sea yu 1 time just before yu ritten that letter whitch started all this mess. well yu seem 2 kinder hav ritten what he sed.

well then he beets it over 2 sea mr. sec. work & told him about it & sed 2 him that if he wants 2 stand in good with yu he had better find the situashun in the oil bizness just like he sed it is, because he had alreddy talked it over with yu & noed what yu think. well then they wated 2 yeres sos that mabe yu wood forgit about it bein yore ideer in the first plase & send yu back a echo of what yu sed in the first plase only they put a little static on the echo sos that yu woodn't reckernize that they was not tellin yu sumthin yu alreddy noed. Only it seams that about 99 & 44/100% of the peeple whitch noes annything about it atall thinks that mabe yu no sumthin about bein pres. but not mutch about the oil ? & that yu aint found out mutch by puttin them secretarys of yores 2 findin out for yu.

well henry you no has bin down in mexico fillin up on chilly. I gess he done that on account of anuther famust character in histery also fed up on spanish fare bfore he started on his battle with the windmills & henry thinks all the don quixits ort 2 eet a little pepper. also he thort bi talkin 2 the mexican pres. about there way of doin bizness down there wood giv him sum ideers about what can be did with the U. S. constitushun.

now cal henry aint no greek but all the saim he is barin gifts & gittin hisself all het up about sumthin whitch aint got nuthin 2 do with the prise of publick utility bonds. I hav bin wonderin mi ownself if he owned the light plant in wash. & was figgerin on gittin his reward from the big printin job whitch will go threw the govt. printin offis on account of the row he started, because it will take so mutch juce 2 run the masheenery. & then I remembers about the govt. buttin in & sayin that publick utilyts & ralerodes ort 2 git so mutch returns regardless, so mabe he wants the govt. 2 take over the oil bizness & guarantee his co's 6 per sent on there investments.

but gittin back 2 the war whitch henry is so skared about cummin on rite away I am wonderin if this country will not need nothin but oil in the case of the war breakin out?

will yu need any branes 2 run that war?

well if yu need branes, don't yu think it wood be a good ideer 2 conserve sum?

Like for instants dorety hisself. a man whitch noes more about the oil bizness than the massed technikal staffs of the biggest orgenashuns in the cuntry & moar about the constitushun & laws than the leedin legal outhoryties, includin the supreem court, well don't yu think it ort 2 be sum kind of a way 2 conserve his brane energy in the case of a emergency? it is a rare man whitch noes enuff about the things I menshun that he can say that all who disagree with him is lires & fools.

but I will agree that the oil bizness is leevin sum oil in the ground whitch is rite accordin 2 the original law whitch says that yu must not cleen up all of the grane & leev sum for the gleeners. if it had not of bin for that rule old boaz & ruth wood not hav got 2 pull off there party out there in the feelds, if yu no yore sundy skool. the only difrents is that if the grane is spilled on the ground the birds & rats will git it, but if oil is left in the ground it is still there, whitch is a kind of conversashun itsownself & ennyboddy what don't like it can figger out sum kind of a way 2 git out later on when it is needed. rite now what this cuntry wants is oil & wants it cheep.

bfore yu do ennything rash now yu hav got yore echo about it aint no oil yu mite consider that this cuntry has had about 8 or 10 wars & won all of them escept 1 without no oil & the way things is we can get oil as long as enny other nashun whitch mite wante 2 fite us can, so if yu want 2 werry about the oil bizness put in a little time wonderin what will happen 2 the flivver bizness when oil plays out—only don't werry 2 mutch because alreddy it has bin a few spots open up sinct the ?aires went out and old spindel top has perdused moar oil in the last month than was in site at the time she was first struck about 25 yeres ago.

but if yu & henry just must hav oil for the next war & bleev that it is only six yeres of it left, it wood be a good ideer 2 go out & pick a scrap with whoever it is yu think we will hav the war with, so we can fite it now while we have the oil & lick hoever it is so that they will stay licked after we hav got no oil 2 fite them with.

yores verry truly,

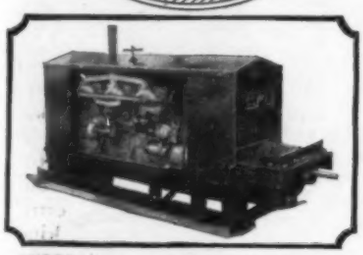
paul peebles, psg.

Where Water is Scarce and Fuel Costly

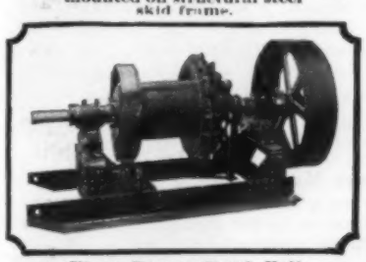
—Use Climax Cable Drilling Units

Operated either on gas or gasoline. No water trouble—no boiler troubles—no attendant's expense—no time wasted in moving, setting or starting. No expense when not drilling. Telegraphic control to derrick floor operates engine. Always ready for instant use. Let us show you how you can cut drilling costs greatly with—

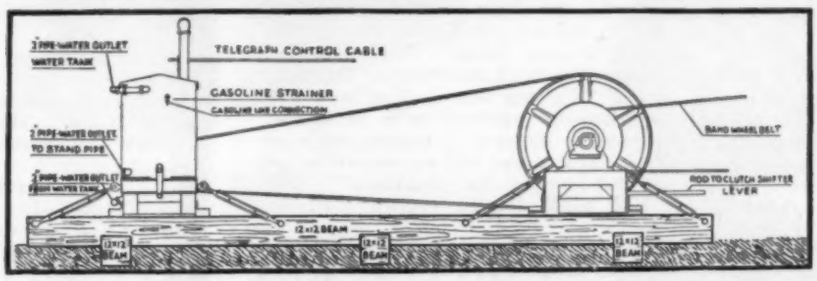
CLIMAX CABLE DRILLING UNITS



6-Cylinder, 6 x 7 inch Climax Engine mounted on structural steel skid frame.



Climax Reverse Clutch Unit



Write for Bulletin H

Climax Engineering Co., 51 W. 18th Avenue, Clinton, Iowa

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Also Sold by

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Coast Machinery Corp., 829 Folsom St., San Francisco, Calif.
Petroleum Electric Co., Tulsa, Okla.
Dunnigan Tool & Supply Co., Westbrook, Texas
Sheehan & Co., 1516 Bassett Ave., El Paso, Texas
Mine & Smelter Supply Co., Salt Lake City, Utah
W. A. Browning Co., Commerce St. & Exposition Ave., Dallas, Texas
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Strong—Well Made —Reliable

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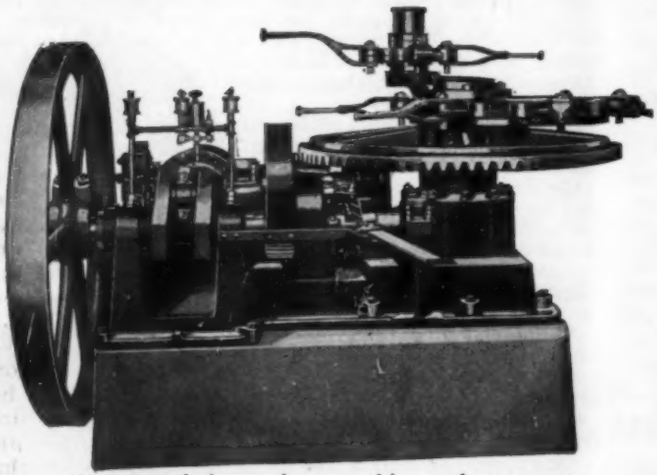

1. Spur Gears are cut from the solid steel and run very quietly.
2. Clutch Hub is of steel,—and the pinion gear cut from solid steel.
3. Engine crankshaft has an O. B. bearing cast on the bed plate and is self contained.
4. Lever Clutch is mounted on engine shaft,—is fitted with wood shoes, and will carry the heaviest loads without slipping.
5. One large oil reservoir on disc pin oils the complete outfit.
6. Built in 15 and 20 H. P. sizes, also 8 and 12 H. P. single disc.

Complete information on this modern pumping outfit will be gladly mailed on request

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Torpedo Reels and Clamps
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Steel Storage Tanks
High Pressure Tanks
Howe Casing Heads

SQUEAKS FROM THE BULL WHEEL

Columbus' Last Name

A new school house had been built and equipped in a district where the Pure Oil Company, with home office at Columbus, Ohio, pays about 90 per cent of the taxes. A parents' and patrons' day was arranged and Howard N. Cole, Vice-President of the Pure Oil Company, happened to time a visit to their properties with the patrons' day.

He was curious to see how well the school board had expended his company's money, so joined the visitors. The principal had arranged for school work to go on as usual so parents and patrons could see just what work was being done.

During his visit Mr. Cole was taken into a history recitation room just in time to hear the teacher ask:

"Who discovered America, Johnnie?"

"Ohio," Johnnie answered.

"Wrong," said the teacher. "Did you ever hear of Columbus?"

"Yes," replied Johnnie, "Columbus was Ohio's first name."
—Pure Oil News.

Why Rome Fell

It seems there were two Romans, one Mark Antony by name and Julius Caesar of Caesar, Caesar and Caesar. Well, they met one day in the Parthenon and Caesar thought he would kid (see Lardner's "Roman Slang") Antony so he said, "Well, Mark, has your wife been entertaining this season?" and Antony replied, "No, not very." You wouldn't believe it but Brutus and Samson happened to be passing at the moment and Brutus was so enraged at hearing such an old joke that he stabbed Caesar, and for no reason at all said, "How many eggs did you eat for breakfast?" And smiling through clenched teeth, Caesar replied: "Et tu, Brute!"

Now Samson had a very quick temper, too, and he hated practical jokes, so when he saw what a dirty trick Brutus had played on Caesar he began pushing buildings down in his rage and that's how Rome fell.—Judge.

"I never knew Jones had twins."

"He married a telephone girl and, of course, she gave him the wrong number."

Fugitive: "Quick! Where can I hide? The police are after me."

Office Employee: "In the filing cabinet. Nobody can ever find anything there."

"Johnny, what is velocity?"

"It's what a fellow lets go of a bee with."

Stranger: "What will you take for that fine Jersey cow you have?"

Farmer: "That depends upon who ye be. Be ye the tax assessor or has she been killed by the railroad?"

Young City Miss: "There isn't much pep to the girls out here, is there?"

Farmer Brown: "Pep? Well, I dunno 'bout that, lady. Now this mawin' our gal Sarah milked fifteen cows before breakfast."

Two gentlemen of color were discussing their wives' culinary abilities.

"Man," boasted the first, "dat wife o' mine am so good dat when she makes co'n pone, hit taste jes' like angel food cake."

"Hesh yo' mouf!" retorted the other. "Yo' ain't never ee nothin'. When mah wife, Iodine, cooks up a passel o' beans, Ah feels just like goin' out an' huntin' me a job."

In Berlin a man was overheard by an officer to say, "That idiot of an Emperor," The officer immediately arrested him for uttering words against his sovereign.

"But I meant the Emperor of Japan."

"You did not; there is only one idiot Emperor."

Oil Small Caliber Political Gun

As to the ownership of natural resources the report estimates that for 1922 six companies controlled about one-third of the developed water power, 8 companies three-fourths of the unmined anthracite coal, 30 companies over a third of the immediate reserves of bituminous coal, 2 companies over one-half of the iron-ore reserves, 4 companies nearly one-half of the copper reserves, and 30 companies about one-eighth of the petroleum reserves.

Congressional Record, 6/16/'26, Page 11341.

Reserves	Companies	Per cent	Average	
Iron-ore	2	50	25)	
Copper	4	50	12½)	Relative gun
Anthracite	8	75	9.4)	caliber for
Water Power	6	33	5.5)	political
Bituminous Coal ..30		33	5.5)	shots.
Petroleum 30		12½	.42)	

Mr. Editor, I ask you, why political air so full with oil. Why do investigation stink bombs be exploded under the Petroleum Industry minus warnings? I not get it. Not for political ammunition it cannot be. Oil have gun caliber of only .42 (from above statistic) and Iron Industry have 25 and Copper 12.5

AEsop, you know him. Great story teller. He say, "Ignorant man pick up live skunk, wise man go other way." My logic he read thusly—Congress man be ignorant—oil man should be wise, take example from skunk.—Let political man know too much investigation oil business all same to much investigation skunk business.—Then Congressman leave oil business alone.

(Literal translation of a Chinese letter recently received.)

The Business Man at Home

Mrs. Fletcher—Did you have a hard day at the office, dear?

Fletcher—In re your question as to my day at the office, will say that business matters were pressing and that I am very tired.

Mrs. Fletcher—Well, dear, dinner is ready.

Fletcher—Your statement re dinner duly noted, and your suggestion will be acted upon as soon as possible. In spite of all I can do it will be five minutes before I can act upon this, owing to the fact that I have just lighted a cigar. Trusting that this delay will not inconvenience you, and hoping that—

Mrs. Fletcher—Come to dinner at once! It's getting cold.

Fletcher—Your complaint has been placed in my hands by the head of the department. This will be acted upon at once. Feeling sure that you will be pleased—

Mrs. Fletcher—Well, thank Heaven! Won't you have some potatoes, dear?

Fletcher—Will go into conference with my apetite at once, and trust that we will arrive at an early decision.

Mrs. Fletcher—Please hurry dear.

Fletcher—After a conference we are pleased to notify you that we will be highly pleased if this matter re the passing of the potatoes can be pushed through at once. Also note, the memorandum re gravy, which should accompany the order for the potatoes. Thanking you for this favor, we remain, J. H. Fletcher.—*The Natural Gasser.*

A bootmaker gave a money guarantee that his boots would last three months. An Aberdonian bought a pair, but in three weeks brought them back—in holes and completely worn out.

The Bootmaker—"That's queer. You're the only person that has complained. Did they fit you all right?

"Aye, but they were a wee bit tight fur ma brither on the night shift."

Suspicious Wife—"Where have you been all the evening?"

Husband—"I've been talking business with Tom Baker."

"Yes! And I suppose that is baking powder sprinkled all over your shoulder.?"

Down in Texas, the short cotton crop forced a large number of country negroes to the cities. One of these applied for a job at one of the large employment agencies.

"There's a job open at the Eagle Laundry," said the man behind the desk. "Want it?"

The applicant shifted uneasily from one foot to the other. "I sure does want a job mighty bad, but de fack is, I ain't never washed a eagle."

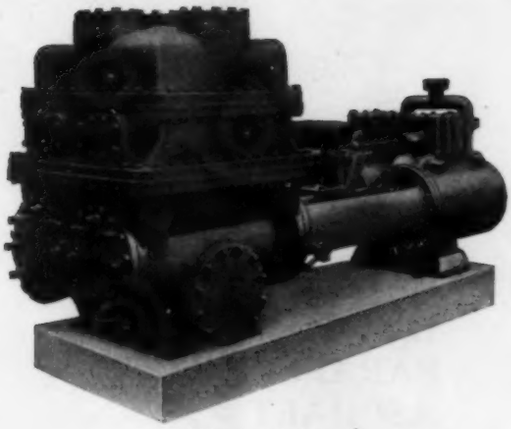

Figure 354

2250 Barrels Every Hour

TWO HUNDRED pounds line pressure is to this big Transit pump merely an incentive to good work. It delivers 2,250 barrels per hour with the omnipotence of fate. The manufacturers have styled it "The Millionaire's Friend," for the man who really needs such a pump has vast resources of liquid gold.

This Transit Pump is only one member of a distinguished family. Transit Pumps are made for every conceivable oil country purpose, from feeding fresh water at the field boiler, to handling red hot tar at the refinery.

Complete information may be had at any Frick-Reid Store about Transit Pumps for your work, or illustrated literature may be obtained from our Tulsa office. Write today.

West of the Mississippi, Stores Everywhere
East of the Mississippi,
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TULSA, OKLA.--- PITTSBURGH, PA.

In Oil Field Equipment—the most HUMAN organization in America

Say you saw it in The OIL WEEKLY

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Magazine Point (Mobile), Ala.
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Jacksonville, Fla.
Charleston, S. C.

It's difficult, of course, to determine where and when any article sold is used.

But this important fact is true: Reed Rock Bits reach the peak of their popularity in fields where wells are the deepest and where formations are the hardest.

This clearly indicates that the confidence that operators in these fields have in the Reed Rock Bit is based upon the ability of this tool to do the work for which it is recommended—quickly, and at the least cost.

The cross-roller action of the Reed Rock Bit Cutters, Four Point Reamer Contact and Slush Lubrication—exclusive features developed by Reed Engineers—are the solution of the problems of rock cutting in formations a mile below the surface in the same degree as in wells of average depth.

WHO BUYS REED ROCK BITS? This, after all, is no great puzzle. Those operators buy them who consider speedy, economical and dependable performance a necessary factor of today's production methods.

Reed Rock Bits

Reed Roller Bit Company

HOUSTON LOS ANGELES

It's not so much what you are promised as who makes the promise that counts—

HYCHROME GUARANTEED

DRILLING BITS

A promise may mean much or little, depending on the one who makes the promise and his ability to make it good. The keeping of a promise is not always a question of the sincerity of the maker but rather of his ability to keep faith. What you are promised is generally not nearly so important as who makes the promise.

We guarantee the pin on our Hychrome Bits because we know that our Hychrome pin has 100% more elasticity, has 50% greater tensile strength and is 50% harder than the best pin manufactured by the ordinary method.

Should the pin on a Bridgeport Hychrome Drilling Bit "break off," "Jump off" or "pull off," we will replace the bit or refund your money—We give you a written guarantee with every set of Hychrome Drilling Bits purchased.

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